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DAVID RICARDO

A CENTENARY ESTIMATE

BY

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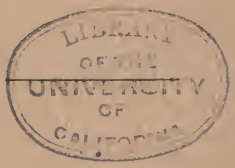

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DAVID RICARDO

I

The Life

On May 31, 1876, the one hundredth anniversary of the "Wealth of Nations" was celebrated in London under most distinguished auspices. A brilliant company of publicists and scholars gathered at the invitation of the historic Political Economy Club; the Prime Minister of Great Britain occupied the chair; the French Minister of Finance was the guest of honor, and a succession of accomplished speakers undertook to estimate with sympathy and enthusiasm 'the more important results which have followed from the publication of the "Wealth of Nations," and the principal directions in which the doctrines of that book still remain to be applied.'[1]

A generation has passed, and again the devotees of economic science are face to face with a centenary anniversary. In January, 1810, one hundred years ago appeared the "High Price of Bullion"—the first formal contribution of David Ricardo to economic writing and the beginning of an identification with the science upon which he was to leave so marked an impress.

Obviously these two occasions are different in kind. The one is the tribute to a book; the other, to an influence. Indeed the contrasts which the two anniversaries suggest are as significant as their association: Adam Smith, the learned academician, the distinguished philosopher, the centre of an influential coterie of scholars and publicists—David

[1] Minutes of Proceedings (1881), vol. iii, p. 77, for an account of the celebration; a full report was also published by the Political Economy Club in a separate pamphlet, now become rare.

Ricardo, the self-taught man of affairs, the conspicuously successful financier just broadening from casual interest in every day happenings to intent concern in economic issues; the "Wealth of Nations," a formal treatise in two stately quartos, long years in the making, heralded by scholars as "equal to what has ever appeared on any subject of science whatever,"[1] and securing for its author "as near an approach to immortality as can fall to any economic writer"[2]—the "High Price of Bullion," a loosely printed pamphlet of some forty pages, quickly conceived and hastily written, undertaking to "add but little to the arguments which have been so ably urged" by others,[3] and long since engulfed in the swift moving stream of current controversy.

But although Ricardo's entry into economic science is marked by no epoch-making contribution, his influence upon the science has been great and determining. It is appropriate to the nature and extent of that influence that the centenary anniversary of his debut should be marked by some sober appreciation, and that before a company of students in an academic environment long distinguished for its sympathetic though discriminating interpretation of the Ricardian economics,[4] an attempt should be made to answer the question which many years ago J. R. McCulloch proposed to a company of English economists: "What are the principal additions made by Mr. Ricardo to the science of Political Economy?"[5]

Before undertaking to review in succession the life, the

[1] Adam Ferguson's foot note to the fourth edition of his History of Civil Society published in 1773; cf. John Rae's Life of Adam Smith (1895), p. 264.

[2] Dr. James Bonar's admirable account of Adam Smith in Palgrave's Dictionary of Political Economy.

[3] Introduction to High Price of Bullion; this interesting prefatory statement was omitted by Ricardo from the fourth "corrected" edition of the tract—the one inserted by McCulloch is his edition of Ricardo's Works.

[4] Professor Dunbar's brilliant note on "Ricardo's Use of Facts" in the Quarterly Journal of Economics, July, 1887, still serves as perhaps the most helpful starting point for intelligent study of Ricardo's theoretical writings.

[5] Meeting of Political Economy Club, December 6, 1838; see Minutes of Proceedings (1882), vol. iv, p. 137.

work and the influence of Ricardo as a political economist, it has seemed important to consider the background of affairs and thought against which that life and work are projected. Intellectual heritage and immediate environment are phases of personal biography; but an active career is affected quite as much by the deeper and more general forces of thought and action that dominate the period. So too any just appreciation of Ricardo's place in the history of economic thought must take account of the larger movements of his life-span no less than of its immediate contacts.

Ricardo was born in 1772 and died in 1823. Just as Adam Smith's career extends over the second and third quarters of the eighteenth century, Ricardo's life thus includes the last quarter of the eighteenth century through the first quarter of the nineteenth. It is practically coincident with the fifty years of English history which intervene between the American Revolution and the final reaction from the Napoleonic era, which remove the organization of the London Clearing House in 1775 from the panic of 1825 and which separate the appearance of the "Wealth of Nations" in 1776 from the publication of McCulloch's "Principles of Political Economy" in 1825. To the historical economist, it is the fifty years of the industrial revolution; to the political historian, it is the half century of the Napoleonic influence; to the historian of economic thought, it is the dawn and early morning of the classical political economy.

If without venturing to appraise this half century as an historical period or to interpret it as an economic epoch, we should undertake simply to designate those basic elements which influenced life and thought therein by sheer pervasiveness, it is clear that there are at least three phenomena of such absolute importance and far-reaching effect as, from first to last, in one form or another, to dominate the period. These are agricultural ferment, industrial expansion and financial activity. It is hardly too much to say that from 1775 to 1825, no intelligence was evolved in England, in

any degree interested in economic happenings, which did not in its growth reflect the presence and working of these factors. That the agriculturists were undergoing extreme vicissitudes and complaining noisily as to them, that the manufacturers were rolling up great profits upon the maintenance of which the nation's very life was popularly regarded as dependent, that the consumer was suffering from a crushing burden of taxation, and that the funded debt was swelling to proportions which threatened the collapse of public credit—these facts loom forth with vivid clearness in what might be termed the Ricardian background, and they constitute over and above everything else the ultimate elements in Ricardo's mental history.

The several phenomena are organically related and the clue to the sequence is the progress and issue of the contest with Napoleon. The fifty years of struggle, imperfect recovery, renewed war and slow revival were made possible by tremendous increase in the nation's resources, consequent upon profound changes in its economic life. The England of 1750 must have succumbed at an early stage to the life-sapping strain of the fight. That the staggering burden could be borne at all by England of the next half century, and that eventual success attended what had resolved itself into a sheer contest of endurance, was the result of a great industrial expansion, entailing radical change in agricultural life, and involving heavy burdens of taxation and indebtedness.

In 1775 England—barring extreme seasonal fluctuations—was still a grain exporting country. In the decade from 1780 to 1790 the annual surplus was much reduced, and in the next period of ten years, with rapid increase of population, corn exports ceased. During the whole struggle with Napoleon and for five years thereafter, the average annual imports of corn alone were well over a half million quarters. From 1820 to 1825 extraordinary crops rendered recourse to foreign markets unnecessary; but thereafter importations were resumed in heavier amount, and the average for the

decade materially exceeded the figure for the preceding years. Thus, from 1775 to 1825, despite extension of cultivation and improvement in methods, England was engaged in what seemed to be an unsuccessful attempt to feed herself. Instead of producing an actual food surplus, a considerable part of the industrial product of the nation was annually surrendered in exchange for an imported food deficit.[1]

The result was an intense struggle on the part of the English agriculturist and his sympathizers to preserve the home market by maintaining the domestic value of grain at what was vaguely termed "a remunerative price." This struggle was aggravated by mistaken protective legislation tending at times to a domestic glut, and it was made vehemently articulate by the social and political prominence of the landowning class. Herein lies the explanation of that intense sensitiveness on the part of parliament and public opinion to agricultural complaints, that constitutes the agricultural ferment pervading the economic life of the half century.

This seeming food deficit resulted from no absolute dearth or physical exhaustion of English soil. England was well able if necessary to feed herself. Foreign grain was imported, in accordance with a principle soon to be formulated by economic analysis and now generally accepted as a theory of international trade, in consequence of the superior productivity of English industry. By virtue of great industrial development, England, making more goods and making them cheaper, found it advantageous to send these to other countries in exchange for corn, rather than to raise her own food supply.

The successive phases of the industrial revolution—machinery, the factory system and capitalistic organization—are set forth, in external form at least, in every manual of English social history. A remarkable series of technical inventions and natural discoveries in relation to labor processes were more and more changing the whole form

[1] Porter, Progress of the Nation (1851), pp. 139–140, 149.

and complexion of industrial effort in England. A given labor force working with the new appliances and under the new conditions was able to bring forth an incredibly greater per capita product. Moreover the volume of the labor force itself was increasing, and increasing not only absolutely but relatively. A population growing at an accelerated rate was available, and of this population a larger and larger proportion was drawn into the factories.

Passing the tremendous changes in the social life of the people, and particularly of the wage earning classes, which the decline of the old domestic system and the rapid growth of industrial at the expense of agricultural life meant, the conspicuous fact is that this sustained industrial expansion of a half century was the real cause of an amazing increase of the nation's resources which eventually determined the political destinies of Europe.

It is a commonplace to speak of Waterloo having been won in the chimneyed factories of England. What is perhaps less well understood, and for the intellectual history of the period even more important, is the widespread social consciousness of this very fact, that England's resisting power depended upon the flourishing condition of her manufactures and upon the maintenance, undiminished, of industrial profits. This sentiment was not voiced as loudly as the agricultural plaint, for the new industry had neither political influence nor social prominence. But it pervaded business and financial circles and became the veritable milieu of economic thought.

Just as industrial development was the occasion of agricultural ferment, it gave the possibility of financial activity. The huge additions to the national wealth accruing in the form of industrial profits were transmuted into the fleets and armies that made possible the long struggle with Napoleon. The crucible was an unparalleled resort to taxation and funding, aided by the new efficiency of English private finance. In the matter of taxation, Pitt and his successors long clung to the hope of meeting current expenses out of

the year's receipts, and in this futile endeavor made heavy additions to the existing burden of taxation, the brunt of which fell heavily on the commercial classes.[1] Over and above its own concern, taxation thus became in new and sometimes crude forms the scape-goat for much of the social distress incident to depreciation of the currency, agricultural depression and industrial reaction.

The chronic deficiency in revenue was met by extraordinary drafts upon public credit. From the commencement of the war in 1793, government loans were contracted every year, and exchequer and navy bills were funded at frequent intervals. The funded debt of Great Britain which before 1793 stood at £238,231,248 reached a total of £567,008,978 in 1802, of £734,787,786 in 1810, and of £1,003,768,694 in 1816; of this increase of £765,537,445, £658,506,728 was by new loans and £107,030,717 by funding bills. In addition two loans were raised in England for the Emperor of Germany and guaranteed by the British Government, a further loan was raised and guaranteed for the service of Portugal, and Ireland made repeated demands upon English credit.[2]

Out of this swelling stream of industrial profits seeking funded investment on the one hand, and the insatiable demands of necessitous finance ministers on the other, was evolved that organization of private finance with which the beginnings of England as the capital centre of the world are directly associated. The transition is neatly enough marked by the circumstance that in the Peninsular War the British commissary-general made desperate and unavailing efforts to supply the troops in the field by actual remittance of specie; whereas in the Waterloo campaign through the extensive international connections of the new financial interests just then coming into power, the troops were paid and the foreign subventions met with the utmost facility

[1] Cunningham, Growth of English Industry and Commerce in Modern Times (1892), p. 551.

[2] Hamilton, Inquiry concerning the National Debt (3d edition, 1818) pp. 105, 320–322.

and promptness entirely through the medium of commercial exchange.[1]

While these events were transpiring in the economic life of the nation, its economic thought was largely dominated by the "Wealth of Nations." Adam Smith's treatise required too much thought and reflection to be popular, David Hume had lamented within a month after its appearance, and the reader fresh from the pages of Gibbon's "Decline and Fall," might well have found the Scotch philosopher turgid and prolix. A little later, "the French Revolution seems to have checked for a time the growing vogue of Smith's book."[2] Economic doctrines, and pre-eminently the doctrines of the new economic liberalism came to be identified with French principles and the revolutionary spirit. In 1793 in reading his "Memoir of Adam Smith" to the Royal Society of Edinburgh, Dugald Stewart abandoned his intention of giving a long account of Smith's opinions because at that period, he says, "it was not unusual, even among men of some talents and information, to confound studiously the speculative doctrines of political economy with those discussions concerning the first principles of government, which happened unfortunately at that time to agitate the public mind."[3]

The actual demand for the book was, indeed, not unfavorably affected. While Sir James Stuart's quartos gathered dust on Cadell's shelves, Adam Smith's work sold well, and a tenth edition was reached in 1799. Similarly its influence on political thought and action was considerable. From 1783 on, the "Wealth of Nations" was referred to in parliamentary debates again and again, and almost from the very date of its publication it exerted a direct influence upon the financial policy of the country. In 1792 Pitt declared that Smith's "extensive knowledge of detail and depth of philosophical research will, I believe, furnish the best solu-

[1] Herries, Memoir of the Rt. Hon. John Charles Herries (1880), vol. i, pp. 86, 104, and Appendix B.
[2] Rae, Life of Adam Smith, p. 292.
[3] Ibid., p. 292.

tion of every question connected with the history of commerce and with the system of political economy."[1] And in 1797 Pulteney appealed to "the authority of Dr. Smith, who, it was well said, would persuade the present generation, and govern the next."[2]

But withal, in the closing years of the century, economic speculation had hardly assumed shape and definiteness in the general mind of the country. The term, "the science of political economy," which a decade later had become an easy phrase, was virtually unknown, and there was scanty appreciation even among cultivated classes of the scope and of the purpose of economic study. As a careful student of the period has declared, "it was necessary, in fact, to vindicate a place for Political Economy, to reiterate, enforce, and carry out, in detailed application to the existing circumstances of society, the doctrines of Smith, in order to obtain a general consideration for the science, and acceptance of those doctrines."[3]

This service was effectively performed by Dugald Stewart's lecture courses on political economy at the University of Edinburgh, first delivered in the winter of 1800 and repeated during eight sessions thereafter. During the greater part of this time they were the only deliberate exposition of economic principles accessible to British students. The path was not easily blazed. Political reaction was still in the air and Lord Cockburn relates that when Stewart announced his course, the mere title "political economy" made his contemporaries uneasy: "They thought it included questions touching the constitution of governments, and not a few hoped to catch Stewart in dangerous propositions."[4]

But the engaging personality of Stewart, the clearness and vigor of his critical exposition and the timeliness of his

[1] Rae, Life of Adam Smith, pp. 290–291.
[2] Buckle, History of Civilization in England, vol. i, chap. iv, note 61.
[3] Veitch, A Memoir of Dugald Stewart, in Stewart's Works (ed. Hamilton, 1858), vol. x, p. li.
[4] Cockburn, Memorials of My Own Time (1856), p. 174.

general subject matter draw to his lecture hall, and thereafter kept about him in more or less close association an audience if not large in number, at least remarkable in their then promise and subsequent performance, and comprising "not merely a proportion of students who were passing through their college years, but also, and even chiefly, an audience of riper years, especially members of the bar."[1] The average number of students enrolled was less than fifty; but the list included such names as Francis Horner, Sydney Smith, Francis Jeffrey, the Earl of Lauderdale, Henry Cockburn, Henry Brougham, Macvey Napier, Archibald Alison, James Mill and Thomas Chalmers—the group of men from whom emanated the most substantial contributions to the progress of economic thought in the next generation.[2]

Dugald Stewart seems to have been less of the docile expositor and more of the independent critic than he would have us believe. There came moreover from other quarters some minor dissent from certain of Adam Smith's conclusions. Arthur Young knew of "no abler work," but also of none "fuller of poisonous errors."[3] James Anderson stood out vigorously for the utility of corn law bounties. Jeremy Bentham filed a cogent brief against the impolicy of usury laws. Malthus exposed the weakness of Adam Smith's reasoning in the matter of poor law relief, and the Earl of Lauderdale with much acuteness distinguished the concepts of public wealth and private riches. Francis

[1] Memoir of Dugald Stewart, in Works, vol. x, p. lv.

[2] Testimony as to the influence of Stewart's lectures upon English thought is borne by George Pryme ("Prize Pryme"), whose course of lectures on the principles of political economy delivered at the University of Cambridge in 1816, and repeated annually thereafter, appears to have been the earliest recognition by the English universities (excepting of course Malthus's activity at Haileybury College) of political economy as a subject of study. Dugald Stewart's lectures, Pryme states, "attracted so much attention, that several Members of our own University went from the South of England to pass the winter at Edinburgh, for the purpose of attending them." (A Syllabus of a Course of Lectures on the Principle of Political Economy, 2nd edit., 1819. Preface, vii–viii.)

[3] Stephens, The English Utilitarians (1900), vol. i, p. 77.

Horner, declining in 1803 a publisher's invitation to furnish a set of notes for a new edition of the "Wealth of Nations," wrote to Thomas Thomson as to the motives which had governed his actions: "even if I had been prepared for such an undertaking, which I certainly am not yet, I should be reluctant to expose Smith's errors before his work has operated its full effect. We owe much at present to the superstitious worship of Smith's name; and we must not impair that feeling, till the victory is more complete. There are few practical errors in the "Wealth of Nations," at least of any great consequence; and, until we can give a correct and precise theory of the nature and origin of wealth, his popular and plausible and loose hypothesis is as good for the vulgar as any other."[1]

In short no time could have been more favorable for the initiation of critical economic thought than that in which Ricardo's attention is said to have been first directed to Adam Smith's treatise.

It has been given to few men to leave as profound an impress upon a domain of thought by so brief a period of intellectual activity as David Ricardo. Born in 1772, he died at the age of fifty-one in the very prime of his powers. But of this short span, hardly more than the last ten years, certainly not more than the last fourteen years represent a scientifically fruitful stage. It was not until he was twenty-seven that political economy appears in any degree to have attracted Ricardo's attention. Another decade passed before any tangible evidence was given of special fitness for economic analysis—and then only as an anonymous contribution to current controversy. His important economic treatise appeared in 1817; he entered the House of Commons in 1819 and in 1823 he died. In little more than the time in which Adam Smith is said to have been engaged in the actual composition of the "Wealth of Nations," and in less than the period devoted by Malthus to the revision of

[1] Horner (ed.), Memoirs and Correspondence of Francis Horner (1843), vol. i, p. 229.

his "Essay on Population," the active work of Ricardo as an economist is comprised.

It is this circumstance, in the main, which explains why so little is known of the largest part of Ricardo's life. At thirty-eight his career might still have been described as that of a favorably connected, well endowed member of the Stock Exchange, who, by industry, integrity and ability had amassed a large fortune, and had won the respect of his business associates and the esteem of a limited circle of friends. His first economic composition in 1810 brought the full glare of public prominence, and the few remaining years of his life stand fairly illumined. But even then, personal reserve and perhaps painful association, left the events of his earlier years in obscurity, which neither the intimate relations nor the warm friendships of this later period removed.

The bare outlines of Ricardo's life are described in two brief memoirs—stilted estimates of his work rather than detailed accounts of his life. The first, an "Account of the Life of Mr. Ricardo" published in the "Annual Biography and Obituary for 1824" is ascribed by McCulloch to a brother. The second, from McCulloch's own pen, is a sketch of the "Life and Writings of Mr. Ricardo," prepared for and prefixed to the well-known edition of the "Works" and reprinted on several occasions thereafter. From the three men who perhaps knew Ricardo best—James Mill, Malthus and Hutches Trower—inconsiderable details of his life have come to us, and it is only by piecing together incidental references and scattered allusions in supplement of the unconscious testimony of his own later correspondence that any consecutive account of personal activity and mental history can be given.

So reconstructed, the life of David Ricardo falls naturally into four periods. The first phase, from 1772 to 1799 covers the years of his childhood, youth and early manhood, summarized in a budding career on the Stock Exchange and terminating with his initial acquaintance with the

"Wealth of Nations." In the second period, the decade from 1799 to 1809, Ricardo rose into material affluence and business leadership, and at the same time acquired a manner of economic self-education that culminated in his debut as a currency controversialist. Another decade, from 1809 to 1819, represents his productive period as an economist; in it appeared practically everything that he wrote of enduring value. The last four years of his life, from 1819 to 1823 are absorbed by an active career as publicist in the House of Commons.

The Ricardo family were originally among the great body of Spanish and Portuguese Jews of wealth and position, who, formally expelled from the Iberian peninsula by the intolerance of the "two-faced year," remained there in secret profession of faith as Marranos or Crypto-Jews. It is to this effective concealment that we doubtless owe the tradition that the founder of the house was an Andalusean grandee, who in the middle of the seventeenth century married a Jewess by whom he had five sons, three of whom became Jews and adopted the prenomen of Israel to distinguish them from the remaining two.[1] When the heightened rigor of the Inquisition made Marranism an increasing peril, and the edict of expulsion was repeated in the Papal States, insecure refuge was sought in the city republics of Italy. The Ricardo family appear to have lived in Livorno in the third quarter of the seventeenth century and probably settled there about 1660. A genealogical tree, now in possession of the main stem of the family in Amsterdam, describes one Benjamin Israel Ricardo (1667–1727) as of Livorno, and records the marriage in 1692 of his elder brother, David Israel Ricardo (1652–1721) to Estrela de Joseph Amadios of the same place.

Toward the end of the seventeenth century, however, the status of the Jews in Italy became increasingly unfavorable, and thenceforth it was in Holland that an abiding place for

[1] Letter of Joseph I. Ricardo in Jewish Chronicle (London), November 15, 1895, setting forth "facts which I have gathered from my family's papers."

the foot-sore people was sought. Received with scant welcome, tolerance quickly developed into hospitality, until by the dawn of the eighteenth century the Jewish community of Amsterdam had become the wealthiest, the most influential and the most cultivated in Europe. Its members controlled the Spanish and Portuguese trade and exercised an important influence in the development of commercial relations with the Levant and the New World. Their command of bullion was extraordinary and their interest in shipping considerable.[1]

Drawn in this current, the Ricardo family removed from Livorno and settled in Amsterdam in the early years of the eighteenth century. The name is not found in the list of members of the Jewish congregation of Amsterdam in 1675, nor is it included among those who contributed to the construction of the synagogue in that year.[2] On the other hand we have record, as noted above, of the marriage of a member of the family, David Israel Ricardo, to an Italian Jewess as late as 1692. Two sons were born of this union, Samuel Israel Ricardo and Joseph Israel Ricardo, the latter the grandfather of the economist, whose birth in 1702 apparently in Amsterdam, indicates more or less approximately, the date of settlement of the family in Holland. Joseph Ricardo is said to have gone to Spain and returned with a wife, from the house of Treves.[3] But upon her death Joseph married Hanna Abas in 1727, was blessed with four sons and two daughters, of whom the youngest son, Abraham Ricardo, born in 1750, was the economist's father.

In Amsterdam the Ricardos were dignified and substantial members of the Jewish community. The name of the economist's uncle, David Israel Ricardo (1720–1778) is

[1] Lucian Wolf (ed.), Menasseh ben Israel's Mission to Oliver Cromwell (1901), Introduction, xxx.

[2] D. H. Castro, De Synagoge der Port. Isr. gemeente te Amsterdam, 1675–1875 (The Hague, 1875). For this reference and for other valuable material relating to the early Ricardo family I am indebted to the courtesy of Baron George von Rosenthal and to Mr. J. Hillesum, the learned librarian of the University Library, Amsterdam.

[3] Jewish Chronicle (London), November 15, 1895.

found among the officers or "administradores" of two communal organizations in 1766–1770,[1] and in the list of subscribers to the prayer book, edited by Isaac de Sousa Britto in Amsterdam in 1772.[2] Intermarriages took place between the Ricardo and the Lobatto and the DaCosta families, the fruit of such unions including the mathematician Rehuel Lobatto and the poet and author Isaac DaCosta.[3]

The commercial supremacy of Holland had begun to decline with the passage of the English Navigation Act in 1660. Aimed directly at the Dutch, this measure affected no one class so injuriously as the Jewish merchants of Amsterdam, then largely engaged in trade with Jamaica and Barbados. A movement for the transference of Jewish counting-houses from Amsterdam to London set in and continued progressively through the eighteenth century. In this tendency, religious tolerance figured no less prominently than economic opportunity. The "increasing Hebraism" of English religious thought, as represented by the Puritan movement, the "philo-Semitic sentiment" of the Commonwealth, and finally the far-sighted economic policies of Cromwell inclining him "to consider the utility of his subjects even before he weighed their orthodoxy"—contributed to make conditions favorable for the return of the Jews to England, for the first time since their formal expulsion by Edward I. in 1290. In 1654 occurred the dignified and pathetic endeavor of Menassah ben Israel—a leader of the Amsterdam Jewish community—to secure formal admission for his people. Failing in its full purpose, enough was accomplished for the King in Council in 1664 to disavow a scheme to expel the Jews and to assure them, "that they may

[1] "Beth Ahaim" in 1766, and "Gabaim de Terra Santa y Cautivos" in 1770.

[2] Orden de las oraciones cotidianas en Hebraico y Romance—por orden del Ishac de Sousa Britto, ein Amsterdam 5532 (1772).

[3] See La Grande Encyclopedie (ed. Berthelot) and The Jewish Encyclopedia, sub nom. As early as February, 1673, the municipal archives of Amsterdam record the birth of a child Abigail, to Rehuel Cohen Lobatto and Rebecca Israel Ricardo. The mother of Isaac Da Costa, the poet, was Rebecca Ricardo a first cousin of David Ricardo; see below page 31.

promise themselves the effects of the same favour as formerly they have had so long as they demean themselves peaceably and quietly with due obedience to his Majesty's laws and without scandal to his Government."[1]

Thus in much the manner and for much the same reasons that the Jewish merchants and financiers of the Italian cities had removed to Amsterdam in the seventeenth century, a further transfer from Amsterdam to London took place in the eighteenth century.

In this movement the Ricardo family again participated. Their arrival in London seems to have occurred early in the decade from 1760 to 1770. In the list of the Bevis Marks Synagogue Israel Ricardo, probably an uncle of the economist, is mentioned in 1764.[2] With respect to Abraham Israel Ricardo, the economist's father, we are simply told with evident inexactness that he "came over on a visit to this country, when young, and preferring it to his own, became naturalized and settled here."[3] Abraham Ricardo was born in 1750 and his application for denization was made in 1770, in which connection he spoke of himself as having 'for some years past lived in Great Britain.' It is reasonable to suppose that his arrival in London occurred therefore not later than 1764, while a lad of fourteen.

Young Abraham Ricardo readily found economic foothold in London. As a Jew he could not become a freeman of the City, nor legally transact business as an ordinary broker in the Royal Exchange where alone wholesale trade might be carried on, nor even, in the strict interpretation of City laws, open a shop nor trade permanently within its boundaries. But the Corporation was discreet enough not to attempt the rigid enforcement of its own regulations, and at all times in the ward of Portsoken which had grown to be "a place of privilege for merchant strangers," and without doubt, from time to time, in other parts of the City,

[1] Wolf, op. cit., Introduction, lxxiv.
[2] Gaster, "History of the Ancient Synagogue of the Spanish and Portuguese Jews" (1901), p. 146.
[3] Annual Biography and Obituary for 1824.

free play was given to Jewish enterprise.[1] As a matter of fact, the Jewish merchant-capitalists of the metropolis in the latter part of the eighteenth century were a wealthy and adventurous class, and opportunity was not wanting for a lad of parts.

After the Jewish manner, young Ricardo married, while still a mere youth, and through his wife, Abigeal del Valle, became allied to one of the oldest and most powerful Sephardic families. His early course directed and aided by influential connections, Abraham Ricardo, thanks to energy, frugality and no small degree of native ability, was soon established as a prosperous merchant and broker.

In civil status he shared the more or less clearly recognized position which the Jewish community of London had attained. The repeal of the Naturalization Act of 1753 had in turn been followed by some popular pro-Jewish reaction in which if legal right remained unimproved, actual conditions of protection and encouragement were confirmed and strengthened. But in 1770—in anticipation of his majority —Abraham Ricardo petitioned the Crown in association with Abraham Buzaglo, Alexander and Assur Keyser, Isaac Mendes Furtado, Benjamin Lara and Simon Daniels—all men of position in the community—for letters of denization, and in the following year the royal patent was granted.[2] The patent of denization fortified the favor accorded an economically useful alien by bringing to his household not only security of domicile but many of the most grateful privileges of a natural-born British subject, including the right to institute and maintain legal proceedings and to acquire

[1] Lucien Wolf, The First Stage of Anglo-Jewish Emancipation—a paper read at a meeting of the Jewish Historical Society on June 22, 1903, and published in the Jewish Chronicle (London) of August 7, 1903. I am indebted to Mr. Wolf's encyclopedic knowledge of Anglo-Jewish history for many valuable suggestions.

[2] The petition is to be found in the Public Record Office, in "Petitions" (Home Office Papers), Series II, vol. 3, pp. 203, 207; for the warrant, see "Warrant Book, 1770–1773," vol. 33, p. 126, and for the patent itself, "Patents 11 Geo. III, Fifth Part," No. 17.

and alienate property "freely, quietly, entirely and peaceably."[1]

The young emigré's affairs continued to prosper so that when the Corporation began enforcing with some severity the ordinances against unlicensed brokers, he prepared to acquire one of the twelve transferable brokerships which ever since 1697 the Court of Alderman had allotted the Jewish community. But vacancies here were as infrequent as the privileges were valuable. From the admission of Hart Levy in December, 1769, no such opportunity seems to have presented itself until October 5, 1773, when Moses Alvarenga surrendered, and Abraham Ricardo acquired the coveted silver medal.[2] Thereafter for a decade, either from his abode, No. 1 Bury Street, St. Mary Ax—part residence, part counting room, to which he removed almost about the same time from the older house in Broad Street Buildings[3]—or from the "Jewes Walk," the recognized position in the Exchange, the southeastern corner under the colonnade, assigned the Jewish brokers in the same way as other corners and walks were severally allocated to other leading groups of the brokers' fraternity—Abraham Ricardo conducted his business as broker and merchant, accumulating no vast fortune but gaining a comfortable livelihood and winning increasing esteem and respect.

Maintaining ancestral traditions Abraham Ricardo identified himself closely with the interests of the Sephardic community. His unusual financial sagacity appears to have been recognized even in that body of astute men of affairs. By assessment, gift and bequest the congregational funds had attained considerable proportions, the income of which was expended in varied philanthropic activities while the principal was advanced in properly covered loans. In such transactions Abraham Ricardo served repeatedly as fiscal agent, and we are told that nearly every year a vote of thanks was

[1] Cf. Report of Royal Commission on Naturalization and Allegiance (1869), p. 8.
[2] Guild Hall Records, Rep. 177, fol. 400.
[3] London Directory for 1772, and for 1773, sub nom.

awarded him by the congregational electors for the care and zeal with which he filled this office.[1] Further congregational dignities awaited him, and in 1784 his name appeared in the list of elders who signed the revised Escamoth or regulations governing the conduct of the synagogue.[2]

Abraham Ricardo's union was destined to be a full realization of the scriptural injunction, being blessed by "a very numerous family," of which David Ricardo, the third child was born on April 19, 1772. The economist's childhood was spent in a restricted world of civic security, material well-being, religious orthodoxy and social exclusion. Of the mother we know literally nothing. The economist's writings and correspondence contain not the slightest allusion to her, and we can only assume that some part of the gentle kindliness and strong domesticity of his own nature were traceable to maternal influence The father we can picture, like another

> "Spanish Jew from Alicant . . .
> With lustrous eyes, and olive skin,"

—in domestic relations, devoted and indulgent but exercising sway with the absolutism of a later day patriarch; in religious sympathy, a pillar of the synagogue and an unswerving adherent to the opinions and practices of his forefathers; in business affairs and personal conduct, insistent upon the most literal integrity.

Young David was from the first designed for the same financial career in which his father had attained success and position. With that end in view he was equipped with a practical common school education, at first in England. Later—while still "very young," as in the case of Isaac Disraeli—the lad was sent to Holland, and placed in the household of a senior uncle in Amsterdam.[3] The motive was

[1] Picciotto, Sketches of Anglo-Jewish History (1875), p. 220.
[2] Gaster, History of the Ancient Synagogue of the Spanish and Portuguese Jews, p. 156.
[3] Probably Samuel Israel Ricardo, whose wife was Rachel Pereira. Of the economist's other uncles, the eldest, after whom he was named, David Israel Ricardo, had died in 1778, and a third Moses Israel Ricardo was unmarried.

two-fold, first, that he might receive instruction at a school in that city of which his father entertained a high opinion, but even more that he might, in accordance with the custom still common among Jewish families engaged in international mercantile transactions, acquire in youth intimate acquaintance with the language and institutions of the country with which his father's business chiefly lay and with which his own might be expected to continue.

The rigid discipline of his childhood was not relaxed in Amsterdam. An unpublished letter written by Maria Edgeworth in 1822,[1] from London to some unknown correspondent describes a trivial but diverting episode either of this period or perhaps of an earlier[2] visit to Holland: "At breakfast this morning I was reminding Mr. Ricardo of his having begun to tell me some anecdotes of his early life during a walk we took in a wood at Gatcomb Park, when we were interrupted by a beautiful view which burst upon us at an opening through the trees.—I told him that I had always regretted this interruption and hated the prospect to which I had been obliged (to say) 'How beautiful!'—He was diverted and has promised me that I shall lose nothing by that prospect for that he will tell me his whole history—some day—I wish that day were come.—Speaking of the little incidents which make an impression in childhood and through life, he told me that he could never forget a circumstance that happened to him when he was nine years old about a pair of shoes. He was in Holland at the time at the Hague. He saw in a shop window a pair of shoes with a edging of fur to which he took a fancy, and he entreated that they might be bought for him. It was represented to him that he did not see exactly what sort of shoes they were and that they would not suit him. He persisted,

[1] Original in possession of Mrs. Frank Ricardo to whom the writer is indebted for many courtesies. Excerpts of Ricardo's correspondence with Miss Edgeworth were published in the Economic Journal, September, 1907.

[2] The doubt arises from the fact that in the above letter, Ricardo speaks of his presence in Holland "when he was nine years old," whereas in the Letters written during a Tour on the Continent he refers (p. 19) to being there "from the age of eleven to thirteen."

and they were bought upon condition that he should wear them. He found that they had wooden soles—and this made such a clatter upon the pavement that everybody turned to look at him as he walked, and instead of the fur shoes proving a gratification to his vanity, they became a daily mortification. He would have given anything to have got rid of them, but he had no others—and he says none but himself can conceive the pains he took to slide in walking so as to prevent the noise of his wooden soles from making the disgraceful clatter."

David remained in Holland two years, being then brought back to London for a final year's schooling. We know virtually nothing of the lad's life in Holland. He returned to Amsterdam from time to time on business errands for his father; but the last of such visits was made while still a youth—and thereafter not until 1822, while making "the grand tour" with his family did he see Amsterdam again. Then he wrote, "Although I had not been in this town for more than thirty years I had no difficulty in finding my way, alone, about those places which had formerly been familiar to me," and added reminiscently "I see this town again with great interest." Not only scenes were revisited, but personal friendships were renewed: the various branches of the Ricardo family, Dr. Capadosa, the de Leons, the de Castros, the Teixieras, and most of all, Mrs. DaCosta who as Rebecca Ricardo had been his favorite cousin in his uncle's household, and who now, a recent widow and the mother of Isaac DaCosta, a gifted young poet, received with warm welcome the friend of her girlhood.[1]

Ricardo's formal education may thus be said to have ended with his fourteenth year—his father thereafter employing him regularly in business affairs. In the considerable intervals of leisure which this occupation afforded, David was permitted, we are told, to have tutors for private instruction in such subjects as attracted him, and it is per-

[1] Letters written by David Ricardo during a Tour on the Continent (privately printed, Gloucester, 1891), pp. 17–22.

haps from this experience are to be dated the beginnings of his later interest in natural science—chemistry and geology—even his eager study of Shakespeare to which as Fonteyraud learned from members of his family in 1847 he was much devoted.[1] But such studies must have been, at best, desultory, and a few years later, when a taste for abstract reasoning had begun to show itself and philosophical works to attract his attention and to hold his interest, we learn from the same source, that home influence took the form of positive discouragement of what was regarded as useless and unprofitable speculation.[2]

The elder Ricardo's business activities had passed from trading in commodities to dealing in bills of exchange and public securities. For such transactions the Royal Exchange had gradually ceased to be the principal scene and, despite the efforts of the City, licensed brokers the principal agents. Assembling originally in the rotunda of the Bank of England, unlicensed dealers in stocks and shares had long before this begun to congregate in Exchange Alley. In 1762 a contemporary writer observed, "It is a general remark, that two thirds of the people, that are constant attenders at the books on the transfer days, and are known to be Jobbers, are not legal Brokers."[3] In 1773 a section of the fraternity passed from Exchange Alley to Sweetings Alley, where a room was engaged and kept up by subscription. But the coffee houses of the vicinity—notably Garraway's and Jonathan's—were the real seats of the trade. In 1792 Abraham Ricardo's business address had changed from St. Mary Ax to Garraway's Coffee House, and some years before, in 1784, he transferred his brokership—too valuable an investment to be retained practically unproductive—to Isaac del Valle of 24 Fetherstone Street, City Road, a member of his wife's family.[4]

[1] Notice sur la vie et les écrits de David Ricardo (1847), xx.
[2] Annual Biography and Obituary for 1824.
[3] Mortimer, Every Man his own Broker (5th edit., 1763), preface, ix; see also Francis, Chronicles and Characters of the Stock Exchange (1849), pp. 24–28 et passim.
[4] Guild Hall Records, Rep. 188, fol. 270.

The business world into which young Ricardo as a mere lad was thrust was of a kind calculated to excite and develop the identical qualities of mind which later distinguished him—mental independence, sturdy self-reliance, keen analytical power, all combined with ready candor and singular open-mindedness. David enjoyed the entire confidence of his father in financial matters and was soon exercising powers of the fullest responsibility. His brother relates as illustrating the youth's early maturity that at sixteen, David was entrusted with the convoy of two younger members of the family to Holland, and that neither his father nor his mother "felt the smallest anxiety for the charge which was confided to him."[1]

It was perhaps inevitable with the larger business responsibilities devolving upon the son and the frequent necessity for exercising quick, independent judgment, that there should come, sooner or later, conflict with the patriarchal sway and the intellectual orthodoxy of the father. Whether preceded or not by a series of differences as to business affairs or political opinions, the critical rupture arose from religious non-conformity. Abraham Ricardo was a pillar of the Spanish and Portuguese Synagogue, and as literal in Jewish belief as he was zealous in ritual practice. Moreover he exacted of his children the same implicit faith as his own in the opinions of his forefathers in matters of religion, of politics and of education. We have no means of knowing to what extent, if at all, young Ricardo figured in the religious and communal life of the synagogue. It was probably little more than a passive association inspired by filial devotion and chilled by the rigid formalism into which the Sephardic service had passed. But the parting of the ways came only with David's attachment to a young Quakeress, Priscilla Ann Wilkinson, a daughter of Edward Wilkinson, Esq. The father raged, for to the Sephardic Jew a son marrying outside of the faith was as one whose name passed out of the family circle and for whom the

[1] Annual Register and Obituary for 1824.

memorial prayer for the dead was recited. But David remained unmoved, and soon after attaining his majority in 1793, the marriage occurred, and with it separation from his father's house both in business and personal affairs. Contrary to the paternal monition, Ricardo's marriage was destined to bring complete happiness. "Mrs. Ricardo, brilliant eyes and such cordial open-hearted benevolence of manner, no affectation, no thought about herself"—was Maria Edgeworth's characteristically effusive sentiment. But the incidental testimony of Ricardo's correspondence, and notably that of the "continental tour" warrant more sober estimate of charm and devotion.[1]

McCulloch tells us that before this event young Ricardo had actually seceded from the Jewish faith, but I can find no evidence of this and family estrangement and communal ostracism more likely characterize what really occurred.[2] Indeed McCulloch himself states that coincident with the sharpest difference of opinion David "never failed to testify the sincerest affection and respect for his father," and we know that in later life his relations with members of his family were close and intimate.[3] But between father and son nothing in the nature of a reconciliation was ever effected. Like the faith itself to which he gave such full measure of allegiance, it was Abraham Ricardo's tragic lot to rear up many children only to have them leave him spiritually at maturity. He continued for many years

[1] Hare (ed.), Life and Letters of Maria Edgeworth (1895), vol. ii, p. 380; in an editor's note, Mrs. Ricardo is confused with her daughter-in-law (Catherine, daughter of W. T. St. Quentin of Seampston Hall, Yorkshire), whose marriage to the economist's eldest son, David, took place on June 1, 1824 (see Gentleman's Magazine, vol. 94, p. 636).

[2] Ricardo must, however, in 1819 as a member of Parliament have taken the oath of allegiance 'on the true faith of a Christian'; see the sketch of David Ricardo by the present writer, contributed to The Jewish Encyclopedia.

[3] During his life-time Ricardo made regular allowances to certain less prosperous members of his family in England and Holland, and these were continued in the form of annuities after his death. His will also provided for small bequests to all of his surviving brothers and sisters—as well as to Malthus and James Mill—and one brother, Francis Ricardo, was made an executor of his estate.

quietly practising his business at Garraway's and later in Capel Court, seeing sons and daughters pass, some by marriage, others by apostasy, out of the synagogue into the larger world.

David's rupture with his father was followed by several years of grave anxiety. With limited resources of his own, weighted with new domestic responsibilities, the transition from affluence to self-dependence was critically abrupt. In this juncture three elements contributed to favorable issue—on 'Change the family name Ricardo had long stood for the highest honor and integrity; further, young David's own qualities of mind and character were known and respected; finally, the circumstances under which he had left his father's roof were well understood, and excited, if anything, a certain sympathy for the young recalcitrant. A number of the most substantial of his father's associates were quick in extending encouragement and support, and David was launched upon an independent career as stockbroker with, as his brother records, "the fairest prospect of success."

The time was favorable for intelligent financial venture and exchange operations. Repeating his father's success of a generation before David profited by these opportunities beyond all expectation. Within a few years, probably before he was twenty-six, he had secured for himself economic independence.

The problem of material cares disposed of, Ricardo allowed himself some relaxation from intent business activity. In part following an inclination of his boyhood, in part through the example and urging of a friend "with whom he was then very intimate," the young stockbroker devoted a part of his leisure to the popular branches of natural science—mathematics, chemistry, geology, and mineralogy. Many years later his sister told of having been invited as a child to witness some of the electrical experiments which Ricardo conducted with all the naïve pride of an amateur physicist; and Fonteyraud, and after him Garnier state, perhaps upon the same authority, that he was

one of the first to introduce illuminating gas in his residence.[1] But even more than chemistry, geology and in particular mineralogy attracted Ricardo's attention, and either at this time, or a little later, he fitted up a laboratory and formed a collection of minerals. The beginnings of modern geological study in England are curiously associated with the Society of Friends, and it is possible that Ricardo may have been drawn into this coterie through his wife's connections.[2] He does not appear to have been a member of the Askesian Society founded in 1796 nor of the British Mineralogical Society organized in 1799. But a few years later these two organizations first merged and then reappeared as the Geological Society, a kind of semi-scientific club, formed by thirteen men dining together at the Freemasons' Tavern on November 13, 1807, and meeting in a similar way once a month thereafter. Ricardo, although not one of the original thirteen, became a member of the Society in 1808, and continued more or less actively interested in its affairs until his death.[3]

The history of science presents more than one example of an almost accidental circumstance being responsible for the original interest of a master mind in the particular subject matter with which it was thereafter to be conspicuously identified. Certainly, casual episode was responsible for Ricardo's attraction to formal economic study. The "Annual Obituary" memoir refers to the circumstance, and McCulloch repeats the story. But the more direct and graphic

[1] Fonteyraud, Notice sur la vie et les écrits de David Ricardo, xix; Garnier, "Ricardo," in Dictionnaire de l'economie politique (ed. Coquelin et Guillaumin).

[2] It is at least worth noting that one Charles Wilkinson joined the Geological Society in 1808, the year of Ricardo's election thereto; see Woodward, History of the Geological Society of London (1907), p. 271.

[3] Woodward, op. cit.; Ricardo was elected a member of the Society in 1808 (p. 271), the same year in which Dr. Marcet, Leonard Horner, William Jacob and Henry Warburton became members. He was named (p. 32) as one of the six "permanent trustees" appointed on April 6, 1810, and was placed (p. 33) on the newly constituted "Council" a few months later. He was again a member of the "Council" in 1815–16. There is no record (p. 33) of any paper contributed by Ricardo to the Society's proceedings.

version is Hobhouse's: "March 2, [1822]. Dined with Lambton—an immense party and splendid dinner. I sat next to Ricardo, who told me that he never thought of political economy till happening one day, during an illness of his wife, to be at Bath, he saw an Adam Smith in a circulating library, and turning over a page or two ordered it to be sent to his house. He liked it so much as to acquire a taste for the study."[1]

We can well understand that as a substantial, well informed man of affairs, Ricardo's attention must have been arrested by the remarkable economic events that were transpiring about him. Even a mind less favorably endowed or an experience less admirably equipped would have been tempted to inquire as to the cause and extent of such conspicuous phenomena as the rise in general prices, the fluctuations in foreign exchange, and the perplexing interrelations of rents and profits. It is not to be doubted that Ricardo early entertained intelligent views on these subjects; but at best they were independent and detached opinions differing only in degree of intimacy from the sentiments which so thoughtful an observer would have formed upon current social and political conditions. There was need of a determining impulse which should both definitely engage his intellect in economic speculation, and at the same time supply the positive structure to which an essentially critical mind should attach, either in affirmation or dissent, its own views. This impulse came in the form of acquaintance with Adam Smith's work. We are told that Ricardo was from the very first highly gratified by its perusal, and that the inquiries with which it is concerned continued thenceforth to engage a considerable share of his time. The story may be apocryphal, although there is no reason for assuming this; in any event the fact is unessential. It is

[1] Lord Broughton, Recollections of a Long Life (1909), vol. ii, p. 179. "C'est, dans des proportions restreintes, l'histoire du bain d'Archimède, de la pomme de Newton, de la lampe de Torricelli, du piston de Watt, l'histoire, en un mot, de tous les germs intellectuels qu'un éclair féconde" (Fonteyraud, "Notice sur la vie et les écrits de David Ricardo," xxi).

enough to know that in the very prime of his mental powers, when a material career had already been achieved Ricardo's attention was definitely drawn to economic speculation by attentive reading of an economic treatise.

In the decade from 1799 to 1809 Ricardo passed from the position of a substantial stockbroker to that of a wealthy and influential figure in the English financial world. This progress, like his earlier material advance, may be ascribed to an unusual coincidence of capacity and opportunity. Even more than the last years of the eighteenth century, the first decade of the nineteenth century offered exceptional rewards for first rate financial ability and unusual speculative talent. Market values fluctuated wildly with the events and rumors of the Napoleonic struggle, and early information or sagacious forecast reaped large gains. The unintelligent policy of the Bank in regard to note issues, pursued under cover of the Restriction, resulted in volent variation in the foreign exchanges and in the premium on gold, and the Continental blockade and a succession of deficient crops caused startling changes in the prices of provisions and commodities. Ricardo was a member of the governing 'Committee for General Purposes' of the Stock Exchange at least as early as February, 1802, when meetings were still held in Antwerp Tavern. He does not appear to have been a member of the Committee elected for the year commencing March, 1802, but instead to have served on the 'Committee for General Purposes' consisting of nine promoters and twenty-one other members formed to arrange the transfer of the old meeting room to the new Stock Exchange.[1]

But it was probably less as a mere broker or independent speculator than as one of the new and important group of "loan contractors" associated with Pitt's bold financial policy that Ricardo rose into financial prominence. In the early years of the funding system the method of open public

[1] Records of the Stock Exchange (MS.). The Secretary of the Stock Exchange, Edward Satterthwaite, Esq., has courteously supplied helpful information.

subscription at fixed terms had been employed, the lists being exposed originally at the Exchequer and after 1714 at the Bank of England. But with the rapid succession of large loans and the wide fluctuations in public credit, the Chancellor of the Exchequer was obliged to abandon public subscription for a more certain procedure—the prototype of modern syndicate underwriting described in 1817 as already in vogue for a considerable number of years—whereby "The Chancellor of the Exchequer is generally attended, at the time appointed, by several of the principal bankers in London, who deliver their offers, having previously made up a list of persons who are willing to share with them to a certain extent, in case their offer be accepted; and the loan is assigned to the offerer who proposes the lowest terms."[1]

At first a prominent figure in the participating groups, Ricardo ultimately became one of this powerful class of "loan contractors." In 1813 we find him replying to an inquiry: "The present loan will be divided amongst the subscribers to the last in the exact proportion of their former subscriptions. It will not therefore be in my power to comply with the request contained in your letter."[2] Some years later Ricardo's name figures in 'Change gossip with Nathan Myer Rothschild's, already the dominant figure in the English financial world.[3]

Ricardo's financial activities were distinguished not only by the integrity and fidelity requisite to successful conduct of such operations, but by a certain larger spirit which even at the time attracted attention. Some evidence of this is contained in Pascoe Grenfell's speech of May 13, 1819, upon Vansittart's financial operations, wherein Grenfell declared that in 1814 the Chancellor of the Exchequer "had stated in

[1] Hamilton, Inquiry concerning the National Debt, pp. 310–311.
[2] David Ricardo to John Robins, Esq. (November 12, 1813; MS. in possession of the present writer).
[3] "Three Expresses are arrived, but the contents of the despatches are not known—one was for Mr. Rothschild, and another for Mr. Ricardo who was at Lambeth" (The Traveller, London, January 30, 1822. It is barely possible, of course, that one of the economist's brothers may be here referred to).

his place, that, having conferred with a number of gentlemen contracting for the loan with regard to the propriety of acting on his (Mr. Grenfell's) suggestion, they all, with one exception only, signified their disapprobation of it, and recommended a loan of £24,000,000 instead of £12,000,000. The exception to which he alluded was that of his honourable friend (Mr. Ricardo), who, greatly to his credit, observed to the chancellor of the exchequer, that if he considered his own interest merely, he must agree with his brother contractors; but if he were to consult the advantage of the country, he should advise the application of the sinking fund, and a loan of £12,000,000 only." Ricardo's comment upon this, also made upon the floor of the House, was characteristic,—"He had certainly then given the opinion which he had long entertained. He should have shrunk into the earth before those who had long known his sentiments if he had given any other; but he knew that those gentlemen who gave a contrary opinion had given it just as conscientiously; for great and sincere differences of judgment on this subject existed in the city."[1]

Notwithstanding the absorbing demands of business affairs, Ricardo's interest in economic study continued unabated and within a few years political economy had become a deliberately pursued avocation. His mind once having been drawn to economic analysis, the extraordinary course of public events, growing out of the Bank restriction and Napoleon's commercial policy, would of themselves have compelled deliberate attention. But more than this the notable succession of economic books and pamphlets that appeared in the first decade of the nineteenth century could not fail to sustain the interest in economic writing which careful reading of the "Wealth of Nations" had excited. In 1801 came Boyd's "Letter to Pitt;" in 1802, Thornton's "Paper Credit;" in 1803, the quarto edition of Malthus's "Essay," Brougham's "Colonial Policy" and Lord King's

[1] Hansard, Parliamentary Debates, vol. xl, 352, 356; cited (in another connection) in Cannan, "Ricardo in Parliament," Economic Journal, September, 1894.

"Bank Restriction"—the first two, in Francis Horner's opinion "a great deal for one year"[1]; in 1804, Lauderdale's "Public Wealth," Parnell's "Currency in Ireland," and Foster's "Commercial Exchanges"; in 1805, Lord Liverpool's "Coins of the Realm," and Macpherson's "Annals of Commerce"; in 1807–8, Spence's "Britain Independent of Commerce," Mill's "Commerce Defended," Torrens's "Economists Refuted" and Chalmers's "National Resources."

Of importance too were the brilliant series of interpretative and critical papers contributed to the newly-founded Edinburgh Review, at first by Francis Horner—das Wunderkind of English public life during the first years of the nineteenth century—and later by James Mill. More than ten years later, Ricardo wrote to Hutches Trower: "I remember well the pleasure I felt, when I first discovered that you as well as myself were a great admirer of the work of Adam Smith and of the early articles on Political Economy which had appeared in the Edinburgh Review. Meeting as we did every day, these afforded us often an agreeable subject for half an hour's chat, when business did not engage us."[2]

Fairly launched on this process of economic self-education—perhaps, even, in consequence of it—Ricardo, in 1807 formed the acquaintance of James Mill, a contact destined to become in its intimacy and range the most important influence in his subsequent mental history and personal life. Five years before, Mill had come from Edinburgh to make "the aspiring Scotchman's venture upon London" and to seek in journalism and letters the distinction he had failed to win in theology.[3] From stray contributor, to hack reviewer and translator, to editor of a short-lived "literary journal," Mill had attained if not literary fame, at least a certain repute among London publishers. While yet in Edinburgh he had, like so many other brilliant young men of the

[1] Memoirs, vol. i, p. 229.
[2] Letters of David Ricardo to Trower and Others, 1811–1823 (ed. Bonar and Hollander, Oxford, 1899), pp. 45–46.
[3] Bain, James Mill (1882), p. 35.

period, fallen under the spell of Dugald Stewart's eloquence, and had extended his study of the moral sciences not merely into politics and political economy, but also into law and jurisprudence. This equipment now stood him in good stead. A short tract on the corn law question in 1804 attracted no attention; but his economic reviews were read with considerable interest, and in 1806 the "History of British India" was projected.

A more favorable opportunity was afforded by the appearance of William Spence's "Britain Independent of Commerce" in 1807. Revamping the central doctrine of the Physiocrats, Spence insisted that agriculture was the real source of England's strength and that there was nothing to fear from Napoleon's blockade. The message was congenial to a feverish public mind, Cobbett gave it approval and vogue in the Political Register, and the pamphlet went to a fourth edition within a few months. To Mill, as independently to Dr. Chalmers and Col. Torrens, the argument seemed false and the conclusion dangerous enough to invite rejoinder, and within the year (1807) Mill wrote "Commerce Defended"—"an answer to the arguments by which Mr. Spence, Mr. Cobbett and others have attempted to prove that commerce is not a source of natural wealth." A pamphlet of one hundred and fifty pages, the performance does not figure large in the history of economic writing. With a certain filial piety John Stuart Mill pointed out that it entitled its author to share with J. B. Say the credit of refuting the fallacy of a possible general over-production of commodities. But even by this advocate its larger claim to distinction was set forth as: "the first of his writings which attained any celebrity, and which he prized more as having been his first introduction to the friendship of David Ricardo, the most valued and most intimate friendship of his life."[1]

The incident, it is true, is not confirmed by John Stuart

[1] J. S. Mill, Principles of Political Economy (1848), Bk. III, chap. xiv, § 4.

Mill in his "Autobiography," and Bain, James Mill's biographer, states categorically although without citation of authority that Mill's acquaintance with Ricardo began in 1811, probably through Bentham.[1] But this latter part of the statement is clearly inaccurate in as much as we know with certainty that Ricardo met Bentham through Mill, and not Mill through Bentham,[2] and on the whole there is no sufficient reason for discrediting John Stuart's explicit declaration in the "Principles."

Where or through what intermediary the introduction took place we are not informed. Ricardo, like Bentham, probably read "Commerce Defended," was gratified by its logical refutation of plausible sophistry and attracted by its wider interest in economic argument. So disposed it would not have been difficult for the well-established man of affairs to have made the acquaintance of the still struggling reviewer and pamphleteer. Closer acquaintance and mutual regard—centering about a common interest in economic discussion—followed promptly upon first contact. In this Mill assumed naturally the rôle of expositor and Ricardo sat docile at the feet of Gamaliel.

But events were rapidly tending to a point where Ricardo's peculiarly favorable equipment came into vantage. The spring of 1808 ushered in a highly speculative period of English commercial activity, marked by the usual incidents of credit expansion and price fluctuations. The Bank of England increased its issues steadily, the total circulation swelling from £17,467,170 in November, 1808, to £18,646,880 in May, 1809, to £19,811,330 in August, 1809. The Hamburg exchange fell from 30s. 8d. in January, 1809, to 27s. 8d. in December, 1809, and the price of gold bullion fluctuated from £4 9s. to £4 12s. per oz.—the market price at £4 10s. being about 15½ per cent. above the Mint price.[3]

[1] James Mill, p. 74.
[2] Letters of Ricardo to Trower, p. 1.
[3] Report, together with minutes of evidence, and accounts from the Select Committee on the High Price of Gold Bullion (1810), pp. 1, 189, 207.

In October, 1808, Mill contributed to the Edinburgh Review a notice of Thomas Smith's "Money and Exchange." The article is interesting as an exhibit of the entering spirit of speculative method and argument into economic writing; as a contribution to monetary discussion it is crass in manner and with respect to the conspicuous phenomena of the moment, the fall in the exchanges and the premium on gold, it is reactionary in content. Ricardo, alert reader of the Edinburgh, could not fail to have had his attention arrested by the flabby uncertainty and wavering agnosticism of Mill's review—the more defective in face of a sharp rise in the gold premium and an abrupt fall in the foreign exchanges. Dissent would naturally be embodied in a brief memorandum submitted in the first instance to Mill and perhaps even prepared at his urging. The contribution was promptly brought to the attention of Perry, the proprietor-editor of the Morning Chronicle, probably again at the instance of Mill whose contact with the editorial rooms of the Chronicle dated from a letter of introduction from Thomson to Spankie presented at the time of his first arrival in London seven years before.[1] Not without some coaxing and with much trepidation Ricardo was induced to make public his views. The contribution appeared in the Chronicle of August 29, 1809, as a brief paper or essay, without signature, under the caption "The Price of Gold" —and with it Ricardo may be said to have entered formally upon his career as a political economist.

The ten years from 1810 to 1819 are the period of Ricardo's essential productivity as critic and author. Even such of his writings as were issued subsequent to 1819 had their inception and, in some cases, their partial expression before. It is hardly too much to say that had he done nothing after 1819 his influence upon the development of the science would have been virtually the same.

The decade opens with Ricardo engrossed in what was

[1] Bain, James Mill, p. 43.

soon to broaden into the "bullion controversy." The first Chronicle contribution was sharply assailed, among other less serious critics, by one writer under the pseudonym "A Friend to Bank Notes but no Bank Director," whose substantial manner and unconvincing argument invited reply. Accordingly, on September 20, appeared a second communication from Ricardo, formally addressed "To the Editor of the Morning Chronicle," and bearing the signature "R." Further discussion resulted, including a second letter from "A Friend to Bank Notes" whom subsequent events disclosed as Ricardo's friend and associate, Hutches Trower—if anything more vigorous in tone and more vulnerable in content than the first. An effective rejoinder by Ricardo appeared in the Chronicle of November 23, evidently marking the exhaustion of editorial patience, for with it the controversy terminated, as far at least as the columns of the newspaper were concerned.[1]

If not exciting much attention, the discussion served at any rate to arouse the prime contributor and to suggest to Ricardo the desirability of presenting his developed views upon the currency situation in more consecutive form. The "High Price of Bullion" was actually published by John Murray as a thin, loosely-printed pamphlet of some forty-eight pages, probably at the very beginning of 1810; but the "Introduction" was dated December 1, 1809, the day following the appearance of Ricardo's third Chronicle contribution, and the pamphlet itself suggests composition, if not at different stages, at least under different influences.

An immediate and impressive consequence of Ricardo's essay was the parliamentary activity of Francis Horner and the series of events leading up to the appointment of the Bullion Committee. To what extent, if any, Horner's thought and conduct were directly influenced by Ricardo

[1] Ricardo's Chronicle contributions have been reprinted and the accompanying controversy summarized by the present writer in Three Letters on the Price of Gold, contributed to The Morning Chronicle in August–November, 1809, by David Ricardo (1903: "A Reprint of Economic Tracts").

affords interesting ground for speculation. The two men were probably friends and in frequent personal and social intercourse. Horner's interest in currency affairs antedated, and, not unlikely, stimulated and affected Ricardo's. But Horner's interest was critical and occasional rather than positive and sustained. There is no evidence that the currency developments of 1808–10 received more than his general attention, absorbed as he was in political life. On the other hand, when Ricardo's aggressive onslaught and definite program compelled public interest, they found in Horner not merely a ready convert, but an impatient and militant partisan.

In this "bullion controversy," or at least in that first phase of it which terminated on May 15, 1811, with the rejection of Horner's resolutions by the House of Commons and the adoption of Vansittart's counter-declaration that gold and paper were then of equal value—Ricardo figured as "the immediate cause of the parliamentary inquiry" and as the conspicuous champion of the bullionist contention. This title was definitely confirmed by the "Reply to Bosanquet" published in the closing months of 1810.

The positive influence of the "Reply to Bosanquet" was as pronounced as its intrinsic excellence. Bosanquet, a man of affairs, a governor of the South Sea Company and an officer of the Bank of England, claimed to have written in behalf of practical men in general protest against the conclusions of so-called doctrinaires, and to have rested his case upon concrete and specific evidences. To have this evidence taken up seriatim—analyzed, dissected and disproved—was meeting the combatant upon his own field and defeating him with weapons of his own choice, and this was Ricardo's service.

By the spring of 1811, Ricardo had won general recognition as an acute thinker and influential writer on currency, and as the aggressive champion, if indeed not the original author of the bullionist creed. Of far greater importance to his later mental history than the resultant distinction was

acquaintance or closer association, growing out of it, with the active economic thinkers of the day.

Even before, the circle of Ricardo's acquaintance was wider in range and more catholic in composition than that of the ordinary man of affairs. At the Geological Society he had met devotees, both scientists and patrons, of natural science. Through Mill he had come in contact with well known journalists and reviewers. On the Stock Exchange he had gravitated to those of his associates, like Hutches Trower, interested in economic discussion, and in the course of public financiering, no less than by virtue of his own substantial position, he must have formed a considerable political acquaintance.

But with the disclosure of conspicuous ability as an economic thinker, aided by the distinction of successful authorship and the prestige of practical influence—Ricardo's social and intellectual relations passed beyond the limits which personal modesty and temperamental reserve had before imposed. Thereafter we find him in frequent contact and friendly association, often at his own hospitable board, with Malthus, Bentham, Place, Mackintosh, Thornton, the Horners, Whishaw, Hobhouse, Tooke, Warburton, Sharp, Lord Holland, Tennant, Dumont, Sydney Smith, and Joseph Hume.

The friendship with Malthus was the most important; and like the intimacy with Mill, it was destined to become a powerful influence in Ricardo's life. The "Essay on Population" had appeared in 1797, and within a few years, its author, although still the "best-abused man of the age," had attained conspicuous prominence in current economic discussion. His appointment as Professor of History and Political Economy at the newly established Haileybury College in 1805—probably the first academic recognition of the science in England proper—confirmed and dignified his status.[1] Ricardo had read the "Essay on Population" in its first edition and had found its doctrines "so clear and so

[1] Bonar, Malthus and his Work (1885), book v.

satisfactorily laid down that they excited an interest in me inferior only to that produced by Adam Smith's celebrated work."[1] Such acquaintance as may already have existed between the two men was doubtless heightened by Ricardo's public entry into the currency discussion, and as early as February, 1810, the two were in cordial association, this relation developing rapidly into friendship and intimacy.

Dr. Bonar, to whose sympathetic interpretation we are indebted for so clear a picture of Malthus, has said "it was the friendship of two men entirely unlike in mental character."[2] But this very fact is perhaps the real explanation of the intimacy. Their training, their vocations and their sympathies were complementary rather than opposed, and rare good-temper and forbearance in discussion, a common enthusiasm for economic analysis, and complete candor and disinterestedness in intercourse rendered the differences in equipment mutually stimulating and helpful.

Thenceforth, until the end, the two were in almost uninterrupted touch. Maria Edgeworth declared they "hunted together in search of Truth, and huzzaed when they found her, without caring who found her first," and added, "indeed, I have seen them both put their able hands to the windlass to drag her up from the bottom of that well in which she so strangely delights to dwell."[3] It was Ricardo who supplied Malthus with technical details as to bullion and foreign exchange and Malthus who applauded or criticised Ricardo's opinions. Hertford was no great journey from London, and Ricardo's house in Mile End and later in Upper Brook Street was Malthus's stopping place when affairs called him to the metropolis, just as Ricardo found welcome respite from the turmoil of the Stock Exchange in much-enjoyed week-end visits to Haileybury.

Through Malthus, Ricardo was drawn, first as a guest and later as a member, into the rare fellowship of the

[1] Letters of David Ricardo to Thomas Robert Malthus, 1810–1823 (ed. Bonar, Oxford, 1887), p. 107.
[2] Ibid., Preface, viii.
[3] Life and Letters of Maria Edgeworth, vol. ii, p. 668.

"King of Clubs," and later when Ricardo had established himself in a Gloucestershire country estate it was again Malthus through whom he became intimate with his neighbors, the Thomas Smiths of Easton Grey—the friends of John Whishaw, Sydney Smith, Hobhouse and the best Whig elements of the period.[1]

The friendship with Malthus, and the correspondence growing out of it, were also responsible if not for Ricardo's continued interest in economic thought, at least for the particular bent which it took and the form in which it was expressed. It is not unlikely that contemporary events and notably the corn-law debates of 1813–14 would have independently impelled Ricardo to similar publication, but certainly the "Essay on the Low Price of Corn" published in the early months of 1815 was the direct outcome of correspondence with Malthus, as its sub-title "remarks on Mr. Malthus' two last publications" implies. So too Ricardo's next tract "Proposals for an Economical and Secure Currency," while directly provoked by Grenfell's parliamentary agitation for a revision of the Bank's privileges, had its genesis in the "Appendix" to the fourth edition of the "High Price of Bullion" prepared in reply to Malthus's strictures in the Edinburgh Review. It was Mill, to be sure, who from the appearance of the "Essay on the Low Price of Corn" in 1815 sought to induce Ricardo to present his views "from the beginning and at greater length" and in the actual arrangement and form of the "Principles of Political Economy and Taxation," issued in 1817, Mill's influence was doubtless paramount; but it was the running controversy with Malthus which perhaps more than anything else sustained Ricardo's interest and overcame the difficulties of arduous composition.

The reception accorded Ricardo's "Principles" while respectful was not enthusiastic. To the elect much of it

[1] Lady Seymour, The Pope of Holland House (1906), passim. Mr. W. P. Courtney has contributed to the volume a charming account of the "King of Clubs," based upon the original minute book, now in the British Museum.

was heterodox; to the layman most of it was unintelligible.[1] Whether or not the fortune of the "Wealth of Nations" was made, as unconfirmed tradition has it, by Fox quoting therefrom in the House of Commons, certainly the "Principles of Political Economy and Taxation" acquired much of its early circulation from McCulloch's highly laudatory review in the Edinburgh Review.[2] Thereafter the book gained steadily in estimation. Before the end of 1819 a second edition had been called for, followed in 1821 by a third and final edition, to each of which Ricardo made significant additions and amendments.

The decade of authorship thus notable in its scientific aspect has a delightful counterpart in the record of personal activities and in the disclosure of genial and intimate character. The close of the Napoleonic struggle not only found Ricardo more active in economic composition, but preparing to realize the aspiration of every early nineteenth century man of business—retirement from active affairs for the placid ease and social dignity of a country gentleman's life. His fortune had grown rapidly with the abrupt financial events culminating in Waterloo. In 1812–13 the house in Mile End was exchanged for a west-end mansion in Upper Brook Street, Grosvenor Square, and in the spring of 1814 a beautiful estate in Gloucestershire—Gatcomb Park, near Minchin Hampton—was acquired. Ricardo like his friend, Hutches Trower, would probably in any event have embraced the opportunity offered by the sharp rise in public credit to convert his fortune from funded into landed property; but this impulse was doubtless hastened by increasing interest in economic study and by the hope of devoting undisturbed thought to such speculations. Some time elapsed before the reinvestment could be effected—indeed

[1] Sismondi records that Ricardo himself declared that "there were not more than twenty-five persons in England who had understood his book" (cf. Blanqui, History of Political Economy in Europe, Eng. trans., 1880, p. 460, note).

[2] June, 1818, Art. ii ("On Ricardo's Principles of Political Economy and Taxation").

not until 1819 did he relinquish membership in the Stock Exchange—and during this interval Ricardo gravitated back and forth with disturbing frequency. But by 1815 Gatcomb had become the abode and the Brook Street mansion, the town house for temporary sojourn during the spring and early summer months of the London season.

From the first Ricardo derived the keenest pleasure from country residence. "I believe that in this sweet place I shall not sigh after the Stock Exchange and its enjoyments," he wrote from Gatcomb Park to Malthus in July, 1814.[1] With the characteristic inexpertness of the city-bred was joined an almost child-like enjoyment of the pleasures of the country-side. Sydney Smith declared that "a new surgeon had set up in Minchin Hampton since Mr. Ricardo has taken to driving"—upon which Maria Edgeworth commented in prudent spirit, "but I prefer it to more dashing driving."[2]

Thenceforth we see Ricardo at closer range—warm-hearted and mild tempered, 'not only wise and good but agreeable,'[3] devoted in his family relations, loving quiet and domestic life, gracious in his hospitality, winning new friends and holding old ones. His marriage had been blessed with a large family—three sons and five daughters—and the privately printed correspondence of his continental tour in 1822 suggests the warmth and intimacy of the home-tie, while Maria Edgeworth has left us a delightful picture of the everyday life at Gatcomb.[4] Before his death three daughters and a son had married and been established at country estates within reach, and thenceforth the young households contested for parental visits, while at intervals, children and grandchildren were gathered in patriarch-like fashion under the Gatcomb roof.[5] Occasional journeys

[1] Letters of Ricardo to Malthus, p. 37.
[2] Life and Letters of Maria Edgeworth, vol. ii, p. 380.
[3] Ibid., vol. ii, p. 402.
[4] Ibid., ii, pp. 379–384.
[5] "It cannot be said"—wrote John Whishaw, "the Pope of Holland House" to Thomas Smith of Easton Grey in 1817—"that Mr. Ricardo has been improperly influenced as to the principles of popu-

were made to neighboring estates, sometimes by Ricardo alone, more often accompanied by Mrs. Ricardo—to the Smiths at Easton Grey, to Hutches Trower at Unsted Wood, to Malthus at Haileybury, to Bentham at Ford Abbey, to Holland House and to Bowood, and twice, in 1817 and again in 1822,[1] the continent was visited. But more often, friends and fellow economists—Malthus, Say, Mill, McCulloch, Whishaw, Maria Edgeworth, Sydney Smith, Hutches Trower—came to Gatcomb, for week-end visits or for longer sojourn, always leaving with regret and bearing testimony to English country house hospitality at its best.

A like social warmth radiated from the Upper Brook Street mansion. "Ricardo's breakfasts" were perhaps the real nucleus of the coterie whose common interest and personal regard culminated in the formation of the Political Economy Club in 1820, and made possible the phrase the "Ricardo School."[2] Young men in particular found welcome and encouragement, and George Grote and John Stuart Mill are but types, though conspicuous ones, of the value and stimulus of this contact.

With the "Principles" off his hands, in enjoyment of increasing recognition as an authoritative exponent of economic principles, free from the distractions of business cares and with abundant means to gratify his impulses—it was natural enough that Ricardo's close friends should have urged upon him a parliamentary career. There were what Ricardo remotely terms the "disagreeables attending the negociation" and the first efforts in June, 1818, were unsuccessful;[3] but eight months later he took his seat for Portarlington, an Irish pocket borough of Queens County. Ricardo never saw his borough nor his constituents—a circumstance

lation, by his intimacy with Malthus. He will enjoy the blessing of Abraham, and may expect to see a tribe of grandchildren and great-grandchildren round his table" (Lady Seymour, The Pope of Holland House (1906), p. 180).

[1] During this tour, Ricardo met Dumont, Sismondi and the Duc de Broglie in Geneva, and J. B. Say, Louis Say and Destutt de Tracy in Paris.

[2] Torrens, Corn Trade (4th edit., 1827), p. 144.

[3] Letters of Ricardo to Malthus, pp. 151–152.

which McCulloch naïvely notes had the advantage of enabling him to speak and vote without being influenced by their opinions.[1] It was generally known that Ricardo had entered parliament "by virtue of his breeches pocket" as Mrs. Grote records—the ingenious arrangement being that £20,000 should be lent to the proprietor of the Portarlington borough free of interest, on condition that the candidate was returned free of expense.[2] But the method was too familiar—indeed for one circumstanced as Ricardo inevitable—and the ability of the candidate too generally recognized to involve any discredit.[3]

There could be no more inviting task than to trace that parliamentary career. Mr. Cannan has with characteristic thoroughness summarized its activities as recorded in the pages of Hansard.[4] But the "Parliamentary Debates" present after all a bloodless chronicle, and a glaringly defective one at that. Ricardo's relation to the inner political life of the House, his effective but impersonal service on important committees, his participation in public political discussion and his influence in the councils of Whigs and Radicals—yet remain to be told. For his time he was not only an active but a faithful member. Mr. Cannan has taken the pains to determine that "His speeches number 126, and though many of them are merely brief, casual remarks, occupy together 177 columns of Hansard. The Hansard of that

[1] Sketch of the Life and Writings of David Ricardo, Esq., M. P., in McCulloch, Treatises and Essays, etc. (2d ed., 1859), pp. 555–556, note; this note is omitted in the memoir of Ricardo prefixed to McCulloch's edition of Ricardo's Works.

[2] McCulloch is authority for this statement (loc. cit.). Spencer Walpole places the amount lent at "£40,000 or £50,000" (History of England, 2nd edit., 1879, vol. i, p. 339), upon the strength of O'Connell's story in the House of Commons on March 8, 1831 (Hansard, 3rd series, vol. iii, p. 201).

[3] Personal Life of George Grote (1873), p. 21. It was "borough-mongering," John Whishaw declared in 1817, that made possible under existing political conditions "the having in Parliament such men as Romilly, Horner, Mackintosh, Tierney, Brougham, &c., who could not easily have found seats, especially before they were known to the public, by any mode of popular election" (Seymour, The Pope of Holland House, p. 210).

[4] "Ricardo in Parliament," in Economic Journal, June and September, 1894.

period seldom gives the list of the majority in parliamentary divisions, but from February 21, 1819, to September 10, 1823, there are 237 lists of minorities, and Ricardo's name occurs in 166 of them. It also occurs in eight out of the nine lists of majorities. That he voted in many of the majorities of which the names are not recorded is improbable, but even if he voted in none of them it is clear that he must have attended divisions most conscientiously."

We know that he spoke his mind plainly on all subjects within his range—not only currency, the Bank, taxation, funding, the sinking fund, agricultural depression, the tariff, but parliamentary reform, retrenchment, freedom of the press and right of public meeting. Dr. Bonar suggests that "His oratory seems in many respects to have resembled that of Cobden. The arguments were given with plain directness without elegance of diction; and they were brought home by matter-of-fact similes from every-day life or commercial experience."[1] As to his influence in the House of Commons, Brougham, by no means a blind admirer, declared, "Few men have, accordingly, had more weight in Parliament; certainly none who, finding but a very small body of his fellow-members to agree with his leading opinions, might be said generally to speak against the sense of his audience, ever commanded a more patient or even favorable hearing."[2]

Everything which Ricardo wrote after 1819 is directly associated with his parliamentary activity. The "Protection of Agriculture" is a manner of minority report of the Committee on Agricultural Distress of which he was a more or less dissenting member; the "Essay on the Funding System"—written under pressure for the "Supplement to the Encyclopedia Britannica" through Mill's and Macvey Napier's insistence—expounded the views on taxation and the national debt which Ricardo had repeatedly expressed on the floor of the House; the posthumous "Plan for the

[1] Letters of Ricardo to Malthus, Preface, x.
[2] Mr. Ricardo, in Historical Sketches of Statesmen in the time of George III.

Establishment of a National Bank" was an immediate sequel to strictures upon the Bank's conduct relative to the Resumption Act. The nearest approaches to doctrinal contributions in this period were the controversial letters to Malthus, Trower and McCulloch, the additional matter inserted in the third edition of the "Principles" and the lost "Notes on Malthus"—and these in so far as we have them are incidents rather than essentials of Ricardo's mental history.

The end came with almost tragic unexpectedness. Although never of robust health, and worn by the strain of parliamentary duties, the autumn of 1823 found Ricardo seemingly in the best of mood, in the midst of spirited controversy with Malthus and McCulloch as to the measure of value, and anticipating early visits to Gatcomb from Mill and Trower, when "we shall all enjoy ourselves together—we shall walk and ride, we will converse on politics, on Political Economy, and on Moral Philosophy, and neither of us will be the worse for the exercise of our colloquial powers."[1] Early in September he was, however, attacked with a pain in the ear. It was regarded as of no grave consequence and seemed to yield to simple treatment. A few days later the symptom reappeared in more acute form, inflammation developed and after some hours of the greatest suffering he died on September 12, 1823.

The remains of Ricado were brought for interment from Gatcomb Park, his actual residence and the place of his death, to Hardenhuish Park near Chippenham, Wiltshire, the beautiful country seat of his daughter, Mrs. Clutterbuck. Recollections of the impressive solemnity of the great funeral cortege which wound over the Gloucestershire hills from Minchin Hampton to Chippenham lingered for many years in the vicinity.

The grave of the economist is marked by a massive monument, a square canopy supported by four pillars with four female figures grouped about a central column. It stands

[1] Letters of Ricardo to Trower, p. 211.

close by the tiny village chapel at the edge of Hardenhuish Park, and is inscribed: "To the Memory of David Ricardo, Esq., M.P." Within the chapel is a simple memorial tablet.[1]

[1] An engraving by T. Hodgetts from a portrait painted by T. Phillips, R. A., was published by Colnaghi's in May, 1822, and is prefixed in reduced size to McCulloch's "new" edition of Ricardo's works. In the lower hall of Gatcomb Park is a marble bust of Ricardo by an unknown artist, showing an older and less placid face.

II

The Work

The life-work of David Ricardo as a political economist presents the dual aspect of theoretical contribution and practical service. A brilliant critic of the Ricardian economics has said that "Among all the delusions which prevail as to the history of English political economy there is none greater than the belief that the economics of the Ricardian school and period were of an almost wholly abstract and unpractical character."[1]

No more convincing exhibit of the accuracy of this generalization could possibly be found than the activities of Ricardo himself. The traditional myth has been of a closet philosopher, making use neither of history nor statistics, whose doctrines "were chiefly, and, considered as a whole, deductive, and flowed naturally from a few hypotheses concerning human nature and the external physical world."[2] Here and there a more careful student of Ricardo's mental history, has recognized that "this 'father of the deductive method,' as he has been called, possessed a more vivid insight into certain industrial facts than many economists before or since."[3] But in the main, Ricardo has been represented as a detached and incorporeal intelligence whose speculations stand unrelated to personal activities or to contemporary affairs.

This misconception has in part proceeded from, is in part responsible for the relative neglect of Ricardo's contributions to practical economics. His doctrines once regarded

[1] Cannan, History of Theories of Production and Distribution (1893), p. 383.

[2] Ely, Past and Present of Political Economy, in Johns Hopkins University Studies in Historical and Political Science, Second Series, No. iii, p. 10.

[3] Rogers, "Ricardo," in Palgrave's Dictionary of Political Economy.

as abstract speculations, comparatively little interest attaches to his work as pamphleteer and publicist. Conversely, once disassociated from his positive work and influence as practical economist, Ricardo's economic doctrines become, naturally enough, metaphysical abstractions.

An examination of Ricardo's practical work as an economist, in contradistinction to his theoretical contribution, thus possesses a dual interest. It is essential to a proper understanding of that body of theory, and it is in itself an impressive exhibit of economic service.

Prior to 1809 Ricardo's interest in economic happenings is the intermittent attention of a well informed financier, standing in much the same relation to his later activities that the half-hour recess discussions with Hutches Trower over Adam Smith's doctrines do to his subsequent work as a theorist. But from the publication of the paper on "The Price of Gold" in the Morning Chronicle of August 29, 1809, Ricardo's contact with economic affairs is direct and sustained, and thenceforth his life as interpreted by his writings and correspondence is in no small degree a reflex of the stirring economic events of the period. Currency and the Bank of England, corn laws and agricultural distress, taxation and the national debt successively absorb his attention and it is to these, in turn, as the objects of Ricardo's thought and activity, that attention will be directed.

The currency question may be regarded as the centre of Ricardo's interest in economic affairs. An active experience in the money market at a time of extraordinary disturbance, supplemented by thoughtful study of economic writings, had developed intimate acquaintance with contemporary monetary events into intelligent grasp of monetary principles. His earliest publication was a contribution to current monetary discussion. The expansion of the Chronicle letters into the tract on the "High Price of Bullion" led to acquaintance with Malthus, to greater intimacy with James Mill, and to welcome within a small but active circle of economic thinkers.

With the appearance of the Bullion Report in the summer of 1810 the successful financier and well-informed man of affairs took rank in the public mind as an authoritative exponent of monetary theories. The "Reply to Bosanquet," afforded full scope to Ricardo's powers as a controversialist, and confirmed a reputation already definitely made. The "Proposals for an Economical and Secure Currency," restated a positive program for resumption that appealed to the public mind, and the "Principles of Political Economy and Taxation" presented in didactic form the views 'on currency and banks' then already become the creed of economic orthodoxy.

It is likely that the hope of hastening currency reform contributed largely to Ricardo's political aspirations. Certainly he entered parliament in February, 1819, at the very time that currency and resumption were the dominant issues. In the succeeding four years in which Ricardo sat in the House of Commons, there was probably no single discussion of currency matters in the course of which his voice was not lifted and his counsel not received with attention and respect, however opposed to the dominant views. Finally, as the currency question had dictated his initial so it inspired his final contribution to the study which he loved. The "Plan for a National Bank" was completed barely a month before Ricardo's death and was published in the following year as a posthumous tract.

But although sustained interest in currency affairs, indeed active participation in currency discussion, extended over the full span of Ricardo's scientific life, the immediate occasion of his thought and writing upon currency matters underwent successive change within that period.

At the outset, Ricardo took the field, at the instance of a journalist friend, to lend the weight of his name and the force of his argument to securing wider recognition for the contention, often before stated but relatively neglected or discredited, that the paper circulation of England was excessive and therefore depreciated, that this fact was evidenced

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by two unfailing symptoms—a premium upon gold and a fall in the exchanges—and that the remedy lay in obliging the Bank to resume specie payments. In expanding his newspaper contributions into a formal pamphlet, Ricardo developed a brief argument upon a current issue—of note primarily because of the distinction of its authorship and the vigor of its contention—into a fairly comprehensive exposition of the theory of money in relation to pending problems. From the appointment of the Bullion Committee Ricardo's energies were absorbed in vindicating the bullionist position from the specific strictures of men-of-affairs on the one hand, and from the doctrinal attacks of theorists on the other hand. Theoretical exposition and controversial defence led naturally to a practical plan for resumption, and in the summer of 1811 Ricardo first outlined his proposal for bullion payments to be urged at intervals thereafter whenever the end of the restriction seemed in sight. With the definitive postponement of resumption and the beginning of agricultural unrest, Ricardo's attention turned from currency to corn laws, and when it reverted again thereto in 1815, the policy and practice of the Bank of England in relation to public and private interests had become the principal theme. With his entrance into Parliament the legislative aspects of the currency discussion—committees of inquiry, parliamentary debates, the actual form of resumption—held Ricardo's interest, either as critic or participant. Finally the virulent abuse of agricultural radicals and political demagogues as to the validity of his theories and as to the consequence of his proposals became the conspicuous fact in the closing years of Ricardo's life.

Ricardo's attitude upon corn law legislation and upon the nature and remedy of the acute agricultural distress, which characterized the years of his public career and formed the chief occasion of his parliamentary activity, was throughout eminently consistent. Even those who like Attwood differed with him the most and considered his opinions the most mischievous, imputed to them this virtue. As occa-

sion demanded, one phase or another of his exposition was emphasized; but his essential views underwent little change and were advanced upon every possible occasion at the expense of much reiteration in discussion and correspondence, and of more misrepresentation and abuse from without.[1]

The effective cause of socio-economic distress, Ricardo believed, was the disproportion between capital and population. To some extent this insufficiency of capital was natural and inevitable. The population of England was increasing and the supply of land was limited. In consequence profits tended to fall and capital inclined to leave the country. But the desire to remain in one's country was strong and largely counteracted this latter evil. Indeed no serious harm would be wrought but for the fact that the natural tendencies to "the abduction of capital" were heightened in effect by the force of certain artificial ones. These were: (*a*) the corn laws, which enhanced the price of necessaries, raised wages and reduced profits; (*b*) restraints upon trade, which operated as a drag upon industry and discouraged the influx of capital; (*c*) the national debt, of which the interest charge had become an intolerable burden and tended to drive capital from the country.

These several causes operated to produce general economic depression. The peculiar distress of agricultural interest was due to the added misfortune of a period of disastrously low prices, brought about by the extension of agriculture, the introduction of improvements, a succession of good harvests and heavy imports from Ireland. The agricultural situation was simply one of enormously increased supply with no corresponding vent. The passage of the act for the resumption of cash payments had effected a reduction of perhaps five per cent. in general prices and the subsequent unnecessary purchases of gold by the Bank had probably increased this to ten per cent. But beyond this the fall in the price of corn could not be explained as the

[1] Letters of Ricardo to McCulloch, Introduction.

effect of currency changes. Nor was taxation alone responsible. Certain charges, such as the poor-rate and the tithe, did bear exclusively upon the agricultural interest; but in the main taxation was a common burden and could not explain the distress of a particular class.

In so far as the distress of the agriculturist was peculiar, it was temporary and tended to work its own correction. Radical legislation was unnecessary and mischievous. On the other hand, no absolute or lasting improvement was possible as long as the conditions of general industrial depression remained unchanged. The remedial course to be pursued was then clear. The corn laws should be repealed, not immediately, nor entirely; but a gradual reduction should be made, extending over a term of years, until a mere countervailing duty, that is, a charge equivalent to the special burdens upon the agriculturist, was reached. Upon exportation a corresponding bounty should be allowed. Less productive capital would thus be withdrawn from agriculture and invested in more profitable industries. Profits would rise and capital would flow into the country. A similar stimulus to industry and consequent increase in available capital would result from the removal of all restraints upon trade, made gradually so as to provide, in so far as possible, for vested interests.

The beneficent effect of such changes Ricardo believed would be tremendously heightened by the extinction, wholly or in part, of the national debt. This could be accomplished by an assessment upon the general wealth of the country, upon fundholder as well as land owner, spread if necessary over a term of years and involving payment to the fundholder at the market value, not at the par value, of his securities. Thereafter, supplies for the year, in war as in peace, should always be raised by taxation without recourse to funding.

With respect to the national currency and the Bank of England, Ricardo inspired an agressive minority and saw actually realized much of that for which he contended. In

the matter of corn laws and agricultural depression, he fought persistently for policies whose temporary rejection foreshadowed ultimate adoption. But in the case of taxation and funding—his third great concern as a practical economist—Ricardo's programme was radical and impracticable and its influence lay in exposing existing evils and in provoking intelligent debate rather than in direct achievement.

Modern discussion of the nature and validity of economic principles has centered largely about the theoretical contributions of Ricardo.[1] On the one hand, common cause has been made by the historical school and by the 'subjective' group of political economists in a vigorous reassertion of Jevons's unfavorable verdict. On the other hand, sturdy contention has come from other quarters as to the essential correctness of the Ricardian theories and with it demand for a radical reappreciation.

But this doctrinal debate has been waged with such heat that polemic endeavor has in no small degree replaced textual study. Fallacy hunting has been met by over-generous interpretation, hypercriticism has been answered by apology, and in intent concern upon establishing or overthrowing alleged errors, both critics and supporters have relatively neglected Ricardo's original exposition and the notable changes which that exposition underwent.

Moreover, students of the Ricardian economics have received by successive publication since 1887 an amount of Ricardo's informal writing hardly less in extent than the aggregate of his formal composition. Such an accession in the case of an economist of indistinct personality, profound thought, and unsystematic exposition could not fail to be productive of important results. The series of letters to

[1] See a paper by the present writer on "The Development of Ricardo's Theory of Value" in Quarterly Journal of Economics, August, 1904, of which free use has been made in the following pages.

Malthus,[1] McCulloch,[2] and Trower[3] respectively and the privately printed correspondence of his continental tour,[4] have not only modified the common estimate of Ricardo's personal character, in acquainting us for the first time with his every-day activity, but have corrected glaring misconceptions of certain of his fundamental doctrines. Even more notable than this, they have made it possible to follow the course of Ricardo's mental history as an economist, and to study with some exactness the evolution of his most characteristic theories. Something of this has already been done, but most of it still awaits cautious and precise interpretation.

There are three clearly defined phases in the development of Ricardo's economic system, corresponding here as throughout to the influences which shaped his mental history. The first began with acquaintance with systematic economic writing in 1799 and extended to the rent controversy of 1814–15, and might be described as consistent exposition of Adam Smith's theoretical concepts. The second phase was incident to the corn-law debates of 1813–17 and to informal discussions as to correlated economic policies, and found initial expression in the "Essay on the Influence of a High Price of Corn on the Profits of Stock," and full exposition in the first edition of the "Principles of Political Economy and Taxation." The third phase consisted in the main, of spirited controversy with friends and critics as to the correctness or adequacy of certain characteristic doctrines, and was still in progress at the time of Ricardo's death.

In inception, Ricardo's economic philosophy dated back to early critical reading of the "Wealth of Nations." Such

[1] Letters of David Ricardo to Thomas Robert Malthus, 1810–1823 (ed. Bonar, Oxford, 1887).

[2] Letters of David Ricardo to John Ramsay McCulloch, 1816–1823 (ed. Hollander, New York, 1895).

[3] Letters of David Ricardo to Hutches Trower and Others, 1811–1823 (ed. Bonar and Hollander, Oxford, 1899).

[4] Letters written by David Ricardo during a Tour on the Continent (privately printed, Gloucester, 1891).

views as he may have entertained before 1799 were the every-day opinions of a thoughtful man of affairs intimately acquainted with financial technique, and owing material success very largely to a signal ability to disassociate causes and trace effects. Ricardo's economic thinking took definite shape in critical systematization of Adam Smith's scattered exposition, and further study proceeded for a decade strictly within these lines.

The body of economic opinion which we may conceive therefore as attained by Ricardo in study of the "Wealth of Nations," and as asserted by him in argument and correspondence until the economic controversies of 1813–17 gave an effective impulse in another direction—was the system of Adam Smith, rid of its inconsistencies, made relentlessly logical, but in the main unchanged. This is very well illustrated by considering the development of Ricardo's concept of value.

An acute student of the Ricardian economics has said that "we are indebted to the Bullion controversy for the Ricardian theory of value."[1] But this can be true only in the most general sense. The subject had become fairly clear in Ricardo's mind long before 1809–10; and the effect of subsequent currency discussion—such as that growing out of Bosanquet's assertion that years of scarcity and high taxation, and not excessive circulation, were responsible for the rise in prices—was, at most, clearer definition and further application of a theory of value and price then already well in mind, rather than independent formulation of a new theory.[2]

Ricardo's concept of value, in its first or Smithian phase, was on the verge of change in 1815. Moreover, in the "Essay on the Influence of a Low Price on Corn on the Profits of Stock," published in that year, the theory of value

[1] Cannan, History of Theories of Production and Distribution, p. 388.

[2] See Reply to Bosanquet (1811), chap. viii, in Works, pp. 354–359; also Bosanquet, Practical Observations on the Report of the Bullion Committee (second edition, corrected, 1810), p. 92 et seq.

figured far less as a novel or basic doctrine, requiring explicit assertion or detailed exposition, than as a restatement of a familiar principle cited merely to establish the proposition that with the progress of wealth the landlord might be expected to benefit not only "by obtaining an increased quantity of the produce of the land, but also by the increased exchangeable value of that quantity."[1] But even from this more or less indirect and partial exposition it is not difficult to reconstruct the theory of value which we may conceive as attained by Ricardo in critical study of the "Wealth of Nations," and as asserted by him thereafter in argument and correspondence until the economic controversies of 1813–17 gave an effective impulse in another direction.[2]

Starting from Adam Smith's recognition—in itself at least as old as Aristotle—of the two different meanings attaching to the word "value" (namely, value in use and value in exchange), Ricardo pursued the course then already made familiar by successive expositors. Value in use is utility. Utility, associated with scarcity and necessary expenditure of labor, confers value in exchange, with which alone economic analysis is concerned. Of the three attributes of exchange value, utility, although always an "absolutely essential"[3] condition, is insufficient as the basis of exchange relations. On the other hand, the second attribute, scarcity—relative to "the varying wealth and inclinations"[4] of prospective purchasers—is the sole determinant of the value of the limited number of commodities whose quantity cannot be increased by labor.

[1] Essay on the Influence of a Low Price of Corn, in Works, p. 377.

[2] The nearest approach to an exposition of this first phase of Ricardo's treatment of value to be found in his own writings is represented by pages 1–15 of chapter i "on value" in the first edition (1817) of the Principles. The chapter as published was undoubtedly composed at different times and under the dominance of different ideas, and it is not entirely fanciful to regard either the formal break (omitted after the first edition) on page 12, or the end of the second paragraph on page 15, as the line of stratification.

[3] Principles (1817), p. 2.

[4] Ibid., p. 3.

It is not, however, with this bare handful of scarcity goods, but with the great mass of freely produced, competitively exchanged commodities, such as can be increased in quantity by the exertion of human industry, and on the production of which competition operates without restraint, that Ricardo's, like Smith's, further discussion "of commodities, of their exchangeable value, and of the laws which regulate their relative prices," is associated.[1]

At the basis of exchangeable or relative value lies the concept of positive or absolute value. Possessing utility and scarcity, commodities are valuable in themselves, in proportion to the capital employed and the labor expended in their production.[2] Positive value is thus the same as cost of production, consisting of wages of labor and profits of stock.[3] But the subject of inquiry is not the value of a commodity in itself, but in its relation to other commodities. Positive values must thus be compared and measured. The positive value of a commodity reduced to commensurable form for the determination of relative equivalences constitutes its exchangeable or relative value.[4]

Up to this point there is little, if anything, to distinguish Ricardo's thought from Adam Smith's exposition. In stating it, Ricardo would probably have slipped more easily than Smith into the loose habit of speaking of labor expenditure as a cause—indeed, the sole cause—of exchangeable value—"the original source of exchangeable value."[5] But this was as far from Ricardo's real meaning as it was from Smith's. On the other hand, Ricardo was even less concerned than Smith with the value of a commodity in itself—that is, with

[1] Principles (1817), p. 3.

[2] Letters of Ricardo to Trower, p. 151; cf. ibid., p. 162.

[3] Principles (1821), p. 46, note; cf. ibid., p. 107; also Essay on Influence of Low Price of Corn, in Works, p. 377, note; and finally, Malthus, Measure of Value (1823), p. 4.

[4] Cf. the question discussed at the meeting of the Political Economy Club on January 5, 1824, with Torrens in the chair and with Malthus, Tooke, Mushet, James Mill, Senior, Warburton and Grote among those in attendance; "In what does the circumstance which determines Exchangeable Value differ from the measure of it?" see Minutes of Proceedings, 1821–82, vol. iv, p. 60.

Principles (1817), p. 5.

its intrinsic significance to its possessor—but, exclusively, with the several amounts of other commodities which it might secure in exchange. His interest thus lay not with positive, but with relative value, and consequently less with the cause than with the measure of exchange value.

Adam Smith had asserted that in "that early and rude state of society which precedes both the accumulation of stock and the appropriation of land"[1] commodities exchange in proportion to the quantities of labor expended in acquiring them. But even in the economic world which Adam Smith saw about him such a measure of exchange value was clearly unworkable. Few, if any, commodities were the product of labor alone. Land, labor, and capital co-operated in production, and the great mass of goods embodied the association in various proportions of these three factors. Such composites could clearly not be estimated in terms of a single unit. A product embodying *a* land and *b* labor and *c* capital, was incommensurable, in the manner proposed, with respect to a commodity to which *c* land and *a* labor and *b* capital contributed.

Adam Smith met, or failed to meet, this difficulty by unconsciously or tacitly substituting—in Professor Wieser's phrases[2]—an "empirical" for the earlier "philosophical" measure of value. He asserted that in ordinary industrial intercourse—that is, as soon as capital had been accumulated and a rent paid for land—relative exchange values were determined by the respective amounts of labor which the several commodities would command instead of by the several amounts necessary for their respective production. Such a substitution involved, up to a certain point, no logical fallacy, and was possible at no greater cost than the sacrifice of doctrinal continuity. In so far as goods are the product of labor alone and that labor remains constant,[3] the circumstance that commodity A exchanges, over any considerable

[1] Wealth of Nations, Book I, chap. vi (ed. Cannan, vol. i, p. 49).
[2] Wieser, Natural Value (1893), xxvii–xxviii.
[3] An assumption which Ricardo was unwilling to concede; cf. Principles (1817), p. 6.

period, for commodity B, makes it possible to assert that the value of each is measured either (1) by the amount of labor involved in its production or (2) by the amount of labor which possession of the commodity will command. Under such conditions the producer may be expected to receive for his product an amount of labor equivalent to that embodied therein, and either unit of measurement is applicable.

But the identity is no longer visible when production has become capitalistic, and interest and, with Adam Smith, rent enter into cost of production, co-ordinate with wages. The first mode of measurement is now distinctly inadequate. Dependent upon it alone, the values of bread produced by labor alone, of shoes produced by labor associated with capital, and of cloth to which labor, capital, and land have contributed, are incommensurable. On the other hand, the second unit of measurement is workable. Such commodities can be compared with regard to the respective amounts of labor which they will command, even though their several costs of production cannot be reduced to terms of labor. Thus by a manner of empirical parallelism a "labour commanded" unit replaced a "labour embodied" unit, and became the characteristic feature of Adam Smith's theory of value.[1]

The transition once effected, Smith undertook to find further and distinctive warrant for "commanded labour"[2] as "the only universal as well as the only accurate measure

[1] It is likely that an identical train of thought induced Malthus in his Political Economy (1820) to incline, although not completely to assent to "the quantity of labour which a commodity will command" as a measure of value rather than "the quantity it has cost," and even more in his Measure of Value (1823) to urge Adam Smith's "labour commanded" unit as a measure of value in preference to Ricardo's "labour embodied" unit, or even to his own earlier "mean between corn and labour." It is characteristic that this transition which Adam Smith merely suggests, Malthus describes with naive explicitness; cf. his Political Economy, p. 124, and his Measure of Value, pp. 15, 16. This subject is treated incidentally, but with much originality and acuteness by Professor Patten in his Theory of Dynamic Economics (1892), chap. vi.

[2] Represented, practically, by corn for long and by silver for short periods.

of value, or the only standard by which we can compare the value of different commodities at all times and at all places."[1] But this contention, although far more prominent in exposition, was distinctly subordinate in theoretical importance, and offered an easy target for critical attack.

The logical consistency of Ricardo's thought resented Adam Smith's empiricism. Short work was made of the claim that "commanded labour" formed an absolutely accurate standard of value. From none of the sources of fluctuations which disqualified—as Adam Smith himself had clearly shown—gold or silver from serving as an invariable standard were the proposed substitutes free.[2] But Ricardo's prime dissent was more fundamental. That a particular unit of measurement should be adequate for determining the exchangeable value of commodities in primitive industrial conditions, but must be abandoned after the accumulation of capital and the appropriation of land had shaped economic production, seemed to Ricardo's mind negligent and fallacious reasoning. The employment of capital and land as production goods might qualify the original simplicity and universality of the labor measure, and even compel the recognition of particular categories as exceptional. But this was very different from throwing over the entire theory, and comparable rather to that slight modification of the labor theory—recognized by Adam Smith and confirmed by Ricardo—whereby differences in the quality of labor were adjusted by the higgling and bargaining of the market according to "that sort of rough equality which, though not exact, is sufficient for carrying on the business of common life."[3]

Probably even at this period Ricardo would have admitted that we have no knowledge of any one commodity "which now and at all times required precisely the same quantity of labour to produce it," and that a perfect standard of value was therefore unobtainable. Yet he would doubtless have

[1] Wealth of Nations, Book I, chap. v (ed. Cannan, vol. i, p. 38).
[2] Principles (1817), pp. 7–11.
[3] Wealth of Nations, Book I, chap. x (ed. Cannan, vol. I, p. 33).

added then, as he did a few years later, that, if we undertake to ascertain what are "the essential qualities of a standard," and to study "the causes of the variation in the relative value of commodities" and "the degree in which they are likely to operate," we shall find that "under many circumstances" . . . "the quantity of labour bestowed on a commodity" is "an invariable standard, indicating correctly the variations of other things."[1]

At this point Ricardo paused. Not yet prodded by James Mill to written exposition nor even impelled by current debate to consecutive statement, he remained mentally content with the general outline of Adam Smith's concept of value. But this acquiescence was emphatically subject to the reservation, conceived with much of the precision and maintained with all of the vigor that distinguished Ricardo's doctrinal thought, that Adam Smith had erred in abandoning his original measure of value—namely, "embodied labour"—and that the same principles determined exchange relations in advanced industrial conditions that prevailed in "that early and rude state of society" which preceded the use of capital and the appropriation of land.

There is trace here and there of other appreciable amendments of Adam Smith's doctrines, to be associated with this first phase of Ricardo's economic thinking. Thus Ricardo was inclined to doubt that "the equality of profits will be brought about by the general rise of profits"; but rather that "the profits of the favored trade will speedily subside to the general level."[2] He by no means agreed with Adam Smith respecting the effects of taxation on the necessaries of life.[3] He added to Adam Smith's account of the defects of taxes on the transference of property the further objection that they "prevent the national capital from being distributed in the way most beneficial to the community."[4] He dissented

[1] Principles (1817), pp. 6, 7, 11, 12.
[2] Ibid., p. 148.
[3] An Essay on the Influence of a Low Price of Corn on the Profits of Stock, p. 38 n.; also ibid., p. 44.
[4] Principles, p. 192.

from Adam Smith's implication that the export of manufactures was necessary to give employment to the capital which produced them by insisting that "there can never, for any length of time, be a surplus of any commodity."[1] He declared that "Little dependence for information can be placed on that which is the fixed and legal rate of interest," in answer to Smith's doctrine that "the market rate of interest will lead us to form some notion of the rate of profits, and the history of the progress of interest afford us that of the progress of profits."[2] He doubted "whether a mother country may not sometimes be benefited by the restraints to which she subjects her colonial possessions," whereas Adam Smith believed that such a course "is not less injurious to the mother countries themselves, than to the colonies whose interests are sacrificed,"[3] and he was of the opinion that "Adam Smith constantly magnifies the advantages which a country derives from a large gross, rather than a large net income."[4]

It is possible that even these differences, or at least some of them, came later and dated from that critical re-reading and annotating of the "Wealth of Nations" which immediately preceded the actual composition of the "Principles of Political Economy and Taxation."[5] But admitting earlier origin, the aggregate effect was inconsiderable—leaving Ricardo on the eve of the corn-law debate, like James Mill, Malthus, Francis Horner and most of those to whom the term "political economist" was just then beginning to be applied—essentially an expositor of Adam Smith.

The second and major phase of Ricardo's activity as a theoretical economist is directly traceable to the corn-law controversies of 1813–17 and to active debate with Mill, Malthus, McCulloch, Say and Torrens as to controverted

[1] Principles (1817), p. 402.
[2] Ibid., pp. 410–411.
[3] Ibid., pp. 476–477.
[4] Ibid., p. 491.
[5] See below, p. 80.

economic doctrines. It was inevitable that Ricardo's thought during this period should take the form of a theory of distribution and that it should centre about the rate of profits. As to the first of these—the importance of a theory of distribution in a system of social economy—Ricardo's heritage from Adam Smith was inconsiderable. Mr. Cannan's studies have made clear that the theory of distribution contained in the "Wealth of Nations" is in reality "no essential part of the work," and that it is little more than his observations on rent, wages and profits given an unreal formalism in consequence of "the acquaintance with the French *Économistes* which Adam Smith made during his visit to France with the Duke of Buccleugh in 1764–6."[1]

But in the generation which intervened between Adam Smith and Ricardo, and more particularly in the decade and a half from the Bank restriction to the corn law controversy, the problem of economic distribution was thrust much to the fore. To some extent—perhaps more than has been admitted—this was the work of theoretical economists, notably of Turgot and of J. B. Say. But to a far greater degree, and with determining influence in the case of Ricardo, it resulted from the economic events of the period. From 1800 to 1815, the years of Ricardo's hibernation as a theoretical economist, the three great struggles—currency, corn-laws and public finance—which have already been referred to as constituting the conspicuous elements in the Ricardian background were acute political issues, challenging the attention not merely of economic students but of all intelligent men of affairs.

In each case, the question at stake was whether legislation should have regard for the condition of one particular class rather than of another—fairly compelling antecedent consideration of the theoretical principles governing existing incomes. Thus the controversy growing out of the Bank restriction turned on the point as to whether the debtor class

[1] Editor's Introduction to Wealth of Nations, xxx.

of the community should be favored by expanding issues of inconvertible notes and by a depreciating monetary standard, or whether the creditor class should be protected or even benefited by compelling the Bank to resume specie payments and in anticipation thereof to contract its circulation. The corn law debates, in parliament and out, could be summed up in a simple alternative: should the commercial policy of Great Britain be shaped in the interest of the agricultural classes by checking the importation of foreign grain, or in the interest of the manufacturing classes, both capitalist-employer and wage earner, by securing a cheaper food-supply. With respect to national finances, the issue was, larger resort to taxation, with minor disputes in the matter of incidence, or continued use of funding with heavy drain upon posterity.

It was no less natural, having in mind ultimate consequences and the largest social good, that Ricardo should regard the rate of profits as the paramount consideration in shaping the nation's economic policies—not as a thing in itself but as the symptom of favorable conditions and tendencies.

The principle that a high rate of profits was a cause and an index of increasing national wealth was one of the most influential doctrinal contributions made by Adam Smith to economic thought. The neo-mercantilist exaltation of a low rate of interest had become discredited by the rising industrialism, and the changed creed found favor and justification in the obvious connection between the huge industrial profits and the greater national strength of the new era.

The burden of Adam Smith's economic philosophy in this particular was, that the utility of an economic institution is determined by its influence upon social progress. But social progress is conditional, other things being equal, upon an augmentation of capital. The economic state of society will be progressive, stationary or declining, according to the rapidity with which the national capital increases. This accumulation, assuming no marked change in the habits of

the capital owning class, depends in turn upon the rate of profits. Increasing profits, if derived from more efficient production and not from the exploitation of labor, means larger savings from income, increased employing funds, more active demand for labor, greater production of necessaries and conveniences and added social well being.

To this philosophy, succeeding economic opinion lent itself, and to it up to the eve of the corn law struggles, Ricardo, like Mill and Malthus, in general terms adhered. But the acute agricultural unrest in England in 1813 and the parliamentary discussions that accompanied it could not fail to attract Ricardo's attention and to disturb his economic opinions. In the early part of 1814 doctrinal discussion with Malthus passed from the "old question" of the influence of the currency upon the foreign exchanges to the more immediate problem of the prospective effect of the proposed corn duties upon economic classes and upon their respective incomes.[1]

Either because it was "the simple belief, common enough among the commercial class of his time,"[2] or, more probably, because it was in essence a legitimate heritage from Adam Smith, Ricardo inclined to the belief that restrictions on imports mean a higher price of corn, that the increased price of food causes a rise in wages, that higher wages are attended by lower profits and interest, and that "it is the profits of the farmer which regulate the profits of all other trades."[3]

The controversy began with Malthus's denial that the last proposition, that agricultural profits determine general profits, was any more true than its converse, and consequently that a cheaper method of obtaining food was not the only means of raising profits. Thus a new foreign market, giving a greater demand and higher prices for domestic wares would mean higher gain in particular trades, higher

[1] Letters of Ricardo to Malthus, p. 25.
[2] Cannan, History of Theories of Production and Distribution, p. 164.
[3] Letters of Ricardo to Trower, pp. 5–6.

interest in general, and ultimately higher profits in agriculture.[1]

Gradually the point at issue took more definite shape. In August, 1814, it was the "effect which must *necessarily* follow from restrictions on the importation of foreign corn."[2] A few months later Ricardo declared facility of obtaining food to be "almost the sole cause," while Malthus admitted that it "may be safely said to be the main cause" of high profits.[3] Thereafter, the difference resolved itself into Ricardo's contention that restrictions on the importation of corn were the invariable, permanent cause of low profits, and Malthus's denial that this consequence was either necessary or peculiar.

With the greater precision of thought brought by this controversy, and even more by Malthus's explanation of the nature and cause of rent[4]—abundantly confirmed as it

[1] Letters of Ricardo to Trower, p. 5.
[2] Letters of Ricardo to Malthus, p. 38.
[3] Ibid., p. 46.
[4] It is possible that Ricardo's indebtedness to Malthus and West in the matter of the differential theory of rent is less than has commonly been supposed and less indeed than Ricardo's own expressions in the Preface to the "Principles" have been taken to mean (cf. a paper by the present writer on "The Concept of Marginal Rent" in Quarterly Journal of Economics, January, 1895). In the Introduction to the "Essay on the Influence of a Low Price of Corn" Ricardo explained that the principles which regulate rent as therein set forth "differ in a very slight degree" from those developed in Malthus's tract to which he was "very much indebted." To the close student of Ricardo's literary manner this language, as indeed the more explicit phrases of the Preface to the "Principles," suggest an acknowledgment of prior publication rather than of doctrinal obligation. Something akin to this, at least was McCulloch's opinion: "It is well known to many of his [Ricardo's] friends," McCulloch wrote in 1828, "that he was in possession of the principle [of rent], and was accustomed to communicate it in conversation, several years prior to the publication of the earliest of these [Malthus's and West's tracts] works" (Note on Rent in McCulloch's edition of Wealth of Nations, 1827, vol. iv, p. 125). On the other hand, McCulloch's memory was not always trustworthy—in this very connection Ricardo's tract is described (ibid., p. 124) as "two years after," that is, of 1817. Moreover, if the point is to turn upon the date of inception of the doctrine of rent as well as of its publication, account must certainly be taken of the fact that Malthus's "Inquiry into the Nature and Progress of Rent" contains "the substance of some notes on Rent, which, with others on different subjects relating to political economy, I have collected

was by the testimony of practical agriculturists before the parliamentary committees—Ricardo not only grew convinced of the fallacy in Malthus's protectionist position, but, more fundamentally, he became aware of the basic defects in Adam Smith's doctrines as to the inter-relations of wages, profits and rents. Ricardo wrote the "Essay on the Influence of a Low Price of Corn on the Profits of Stock" primarily to make clear that Malthus's protectionist conclusion was at variance with his free trade reasoning. But the larger significance of the "Essay" is that it marks the passing of Ricardo from an expositor of Adam Smith to the author of an independent system of economic relations. Impelled to doctrinal controversy and imbued with traditional conviction as to the importance of an increasing supply of national capital, Ricardo sought a theoretical basis for his controverted opinions upon pending issues by establishing the principles which determine the several parts of the national income.

It would not be easy to find in the history of modern science an example of a radical doctrinal change proposed in so unpretending a form. The "Essay" is a brief pamphlet of less than fifty pages. Of this the latter half is given over to answering Malthus's specific protectionist arguments. In some twenty-five loosely printed pages the theoretical exposition is set forth, if indeed that term can be applied to a series of memoranda-like paragraphs.

Ricardo's doctrine is briefly this: The rate of profits of commercial and industrial capitals is determined by the profits of agricultural capital. But capital applied to agri-

in the course of my professional duties at the East India College"—which began in 1807 ("Inquiry," Advertisement); and that "the chief object" of West's "Essay on the Application of Capital to Land" was "the publication of a principle in political economy, which occurred to me some years ago" (Essay, p. 1).

Whatever conclusion be reached as to the respective claims of Ricardo, Malthus and West, I am unable in the light of the foregoing evidence to concur with the suggestion of Professor Seligman that "in the interests of historical accuracy" priority either as to inception or publication of the theory of rent is to be ascribed to Rooke and to Torrens ("On Some Neglected British Economists" in Economic Journal, September and December, 1903).

culture would if left to itself in consequence of the varying fertility and proximity of land, yield different returns. By the operation of ordinary competition, the least profitable employment will determine the general rate; that it to say "the general profits of stock depend wholly on the profits of the last portion of capital employed on the lands." Rent, on the other hand, is that portion of the value of the whole product which is left after the deduction of profits as so determined and of "all the outgoings belonging to the cultivation of land," that is, wages. Obviously then rent and profits have "a very intimate connexion with each other." As society increases in wealth and population, that is, as there is more capital seeking employment and more mouths to be fed, profits must fall and rents rise. This fall of profits will be checked, or in converse case, accelerated either by improvements in agriculture whereby the gross product is increased at the same cost, or by a fall in wages consequent upon population increasing at a more rapid rate than capital. But assuming that "no improvements take place in agriculture, and that capital and population advance in the proper proportions, so that the real wages of labour continue uniformly the same"—then with the growth of capital and the increase of population, cultivation will be extended to the more remote and less fertile land and to less productive uses of soil already under cultivation, with the consequence that rents will rise and "precisely in the same degree" profits fall first of agricultural capital, and thereafter, in direct relation, of capital employed in manufactures and commerce.

The "Essay" appeared in February–March, 1815. To his fellow economists—Mill, Malthus, West and Torrens—the performance was marred by the prominence of its practical conclusion, giving it the apparent significance of a mere tract of the time. To the public at large, even to the serious-minded part of it, the theoretical exposition was obscured by the disjointed elliptical quality of the argument —it was written in hardly more than a week. Ricardo was

soon made aware of these defects and of the desirability of a fuller statement. In August, 1815, he wrote from Gatcombe Park to J. B. Say in France: 'I learn from Mr. Mill that several persons in this country do not understand me because I have not explained my views at sufficient length; and he is trying to induce me to undertake an explanation of them from the beginning and at greater length; but I fear that the undertaking is beyond my powers.'[1]

That Ricardo was nevertheless contemplating such a project seems to have been well understood by his friends. Say wrote to him in December, 1815, that he would wait, in the matter of further controversy, for Ricardo's full explanations in the larger work, and added longingly 'How I envy your lot, to study political economy in your beautiful retreat of Gatcomb Park!'[2] The contest with the Bank intervened, and the "Proposals for an Economical and Secure Currency" was Ricardo's next publication. Not until the spring of 1816 did abstract speculation again seriously engage his attention. In April of that year, he wrote to Malthus: "I hope you have made better use of your time than I have done of mine, and that you are making rapid advances with the different works which you have in hand. I have done nothing since I saw you as I have been obliged to go very often into the city, and after leaving off for a day or two I have the greatest disinclination to commence work again. I may continue to amuse myself with my speculations, but I do not think I shall ever proceed further. Obstacles almost invincible oppose themselves to my progress, and I find the greatest difficulty to avoid confusion in the most simple of my statements."[3]

Business affairs in London continued sadly to interrupt the progress of his studies. "My labours have wholly ceased for two months;" he wrote to Malthus in May, 1816, "whether in the quiet and calm of the country I shall again resume is very doubtful. My vanity has not received suffi-

[1] Letters of Ricardo to Malthus, p. 92.
[2] Ibid., p. 93.
[3] Ibid., p. 115.

cient stimulus to remove the temptation which is constantly offering itself to the indulgence of my idle habits."[1]

But Ricardo's temper, despite his disclaimer, was hardly of a kind lightly to abandon a plan once conceived, and we are not surprised to find him noting in October, 1816: "I shall continue to work, if only for my own satisfaction, till I have given my theory a consistent form."[2] Once back at Gatcomb the work of composition proceeded rapidly. In January, 1817, he wrote in detail to Malthus of its progress: "I have been occasionally employed, since we met, in putting my thoughts on paper, on the subjects which have often passed under our discussion. I have encountered the usual obstacles from difficulties of composition; but I have resolutely persevered till I have committed everything to paper that was floating in my mind. There are a few points on which there is a shadow of difference between my present and my past opinions; but they are not those on which we could not agree. I hope I shall succeed in putting my MS. in some tolerable order, as on that will depend whether I shall again appear before the public. What I have hitherto done is rather a statement of my own opinions than an attempt at the refutation of the opinions of others. Lately, however, I have been looking over Adam Smith, Say, and Buchanan, and where I have seen passages in their works contrary to the principles I hold to be correct I have noticed them, and shall perhaps make them the subject of some comment."[3] By the end of February, 1817, the manuscript was virtually complete and the actual printing had begun. A month later the last sheets were sent to the printer, and in April, 1817, the "Principles of Political Economy and Taxation" was in the hands of the public.[4]

The volume was in scope and in bulk an impressive con-

[1] Letters of Ricardo to Malthus, p. 117.
[2] Ibid., p. 120.
[3] Ibid., p. 125.
[4] [April 2, 1817] "I accompanied Ricardo on Saturday to Holland House. He seemed pleased with his visit. His book is coming out immediately" (Whishaw to Smith in The Pope of Holland House, p. 180).

trast to everything that Ricardo had before written. Instead of a brief pamphlet upon a pending politico-economic issue, we have a bulky octavo of nearly six hundred pages undertaking in some thirty-one chapters to discuss the most important economic and fiscal categories.

The "Preface" gives promise of deliberate plan and orderly arrangement. To determine "the laws" which regulate in different stages of society the proportions of the produce of the earth allotted as rent, wages and profit—is set forth as "the principal problem in Political Economy." Previous writers had afforded "very little satisfactory information" as to these, and unacquaintance with "the true doctrine of rent," lately enumerated by Malthus and West, had led to the neglect of "many important truths." Modestly, with full acknowledgment of aid from earlier economic writers and from the practical events of recent years —Ricardo proposed to state his opinions upon the effect of the progress of wealth on profits and wages, and upon "the influence of taxation on different classes of the community," not hesitating to combat received opinions when "the interests of science" seemed so to require.

The arrangement of the book falls far short of the systematic exposition promised by the "Preface." One of the most brilliant and original critics of the Ricardian economics has indeed urged, with very considerable plausibility, that not only was the "Preface" written after the completion of the "Principles" but that the first three paragraphs—the essential part—were drafted by James Mill.[1] In any event Mill's influence upon its composition must have been considerable—certainly not less than in the case of the "Proposals for an Economical and Secure Currency" which owes its introduction and its division into sections to Mill's critical counsels.

Of the thirty-one chapters, first place is given to value;

[1] Patten, "The Interpretation of Ricardo," in Quarterly Journal of Economics, April, 1893. This notable critique is repeated with certain striking amplifications and, unfortunately, certain bizarre additions in Professor Patten's Development of English Thought (1899), pp. 303–311.

in the next five come fairly consecutive outlines of rent, wages and profits. A chapter 'on foreign trade' is interposed, after which follow twelve chapters on taxation. The last twelve chapters are in the nature of additions, amendments and digressions with respect to what had preceded—owing their presence to suggestion, after-thought or critical memoranda, rather than to any deliberately conceived plan. Curious evidence of the carelessness or haste with which the book was made is the fact that the thirty-one chapters are numbered as twenty-nine, two being designated by asterisks.

It has been a favorite indulgence with those who have given diligent study to the "Principles"—Gonner, Patten, Diehl, Denis—to rearrange its chapters in an assumedly logical order. The best comment upon the futility of such endeavors is that no two attempts show approximate agreement. A safer and on the whole a more fruitful course is to take the book for what it is,—the reflex of an active intelligence rather than a schematized treatise, to trace the quick but certain mental development and to interpret the record in the light of this personal history.

If we turn from the form to the content of the "Principles," the first conspicuous fact which arrests attention is the new prominence and changed character given to the theory of value. The explanation lies in the fact that the initial chapter 'on value' of the "Principles" was designed less as an independent exposition of the concept than as a theoretical warrant for certain practical propositions theretofore advanced or defended by Ricardo. Thus (*a*) Ricardo believed, in opposition to Malthus, that lower profits could only result, in the long run, from higher wages; (*b*) he asserted that McCulloch's proposal to scale down the interest on the national debt was neither just nor equitable; and (*c*) he refused all credence to the popular fear that the free importation of corn would be followed by a further disastrous fall in general prices.

It was to give re-enforcement to such definite proposi-

tions that Ricardo developed and extended his original concept of value. The prime features of his modified exposition were, first, disagreement with the doctrine that every rise in wages must necessarily be transferred to the price of commodities, and, second, demonstration of the converse dictum, that higher wages were actually compatible with lower prices. The extent to which this doctrinal development was an incident of the practical controversies noted above will appear more clearly if the precise points at issue be considered in some greater detail.

The discussion with Malthus which resulted in the "Essay on the Influence of a Low Price of Corn" also left Ricardo aware of a vulnerable point in his theory of the inverse relation between wages and profits. It was impossible to prove that a rise in wages was the exclusive cause of a fall in profits, if it were true that a rise in wages necessarily occasioned a rise in prices. Were the latter the case, the manufacturer simply recouped himself from out of the higher price of his product for the higher wages he was obliged to pay, and profits remained unchanged. Thus the validity of Ricardo's theory of profits became, in a large measure, dependent upon his ability to prove that prices did not necessarily increase as wages rose.

The occasion of Ricardo's acquaintance with McCulloch was assertion and defence of the proposition that a rise in the price of corn did not involve a rise in general prices. In 1816 McCulloch sent to Ricardo, with whom he had had no prior intercourse his proposal, published first in pamphlet and later in book form, of a forcible reduction of the interest on the national debt conformable to the reduced value of corn.[1] Ricardo in reply expressed disagreement with the necessity of adopting so violent a remedy. He pointed out that McCulloch's plan was based upon the assumption that neither gold nor silver but wheat was the standard by which bank notes should be regulated, and that if adopted, the dividend on the national debt must be read-

[1] Letters of Ricardo to McCulloch, pp. 1, 2, 3–9.

justed to the price of wheat every year or every ten years. Then, pressing his analysis, Ricardo summed up: "Your system proceeds upon the supposition that the price of corn regulates the price of all other things, and that when corn rises or falls, commodities also rise or fall,—but this I hold to be an erroneous system, although you have great authorities in your favor, no less than Adam Smith, Mr. Malthus, and M. Say."[1] In how far Ricardo had at this later time of writing already reached the conclusion that a rise in the price of corn and in the rate of wages was not necessarily accompanied by a rise in general prices cannot be determined. It seems, however, reasonably clear that the discussion with McCulloch, centering as it did about a point on which Ricardo's views were most pronounced, should again have convinced him of the importance of completely refuting the fundamental assumption upon which McCulloch's proposal rested,—that general prices were regulated by the price of corn or the rate of wages.

A final impulse to disprove the proposition that lower wages were the cause of a fall in prices came to Ricardo from the general apprehension felt throughout the country that the removal of restrictions on the importation of grain would be followed by a disastrous fall in general prices. In the "Grounds of an Opinion on the Policy of Restricting the Importation of Foreign Corn" (1815) Malthus had called attention to the "considerable check to industry" which the fall in general prices incident to the return to specie payments must occasion, and then cautioned, "it certainly does not seem a well-chosen time for the legislature to occasion another fall still greater, by departing at once from a system of restrictions." Similarly, in another passage, Malthus pointed out how the great majority of "the class of persons living on the profits of stock" will in such event "feel very widely and severely the diminution of their nominal capital by the fall of prices." So wide-spread was this impression and so animated the discussion that it

[1] Ibid., p. 6.

excited that, writing in 1824, McCulloch could say, "the discussions respecting the policy of restrictions on the corn trade, and the causes of the heavy fall of prices which took place subsequently to the late peace, by inciting some of the ablest men that this country has ever produced to investigate the laws regulating the price of raw produce, the rent of land, and the rate of profit, have elicited many most important and universally applicable principles."[1] On the one hand believing firmly, as he did, in the desirability of free trade in corn, and on the other hand recognizing the serious effect of falling prices, it was inevitable that Ricardo should have undertaken to prove that there was no necessary connection between the two phenomena. Thus impelled from three distinct quarters, it is not surprising that an urgent concern of Ricardo from the publication of the "Essay on the Influence of a low Price of Corn" in 1815 to the appearance of the "Principles" in 1817 should have been disproof of the dictum that high wages necessarily meant high prices.

But no principle in the then existing body of economic thought was more firmly intrenched than this "received doctrine"[2] which Ricardo proposed to assail; while the theory which he urged in substitution could at best be described as possessing "the disadvantage of novelty" and opposed by "writers of distinguished and deserved reputation."[3] The whole trend of Adam Smith's reasoning had been to prove that a rise in the price of corn is immediately followed by a proportionate rise in the price of labor and of all other commodities.[4] Malthus had early declared that "the money price of corn, in a particular country, is undoubtedly by far the most powerful ingredient in regulating the price of labour, and of all other commodities," even

[1] A Discourse on the Rise, Progress, Peculiar Objects, and Importance of Political Economy (1824), pp. 64–65.

[2] Principles (1817), p. 39.

[3] Ibid., p. 42; see also McCulloch in Edinburgh Review, June, 1818, p. 68.

[4] Wealth of Nations, Book iv, chap. v; cf. Malthus, Observations on the Effects of the Corn Laws (3d edition, 1815), p. 11.

though "it is not the sole ingredient."[1] Say had asserted, "Si le prix du blé augmente, il [un chef d'entreprise, fermier, manufacturier ou négociant] est obligé d'augmenter, dans la même proportion, le prix de ses produits."[2] Torrens had shown in detail that "A rise in the price of corn raises the price of labour, and the rise in labour is communicated to all commodities, both those which it immediately produces, and those to which these are employed as the equivalents."[3] McCulloch, as we have seen, was so firmly convinced that the price of corn regulates the price of all other things, and that, when corn rises or falls, commodities also rise or fall, that he based upon it his proposal to scale down the interest on the national debt, and had invited Ricardo's assent thereto. Even Ricardo himself had in 1814 written to Malthus that "the prices of all commodities must increase if the price of corn be increased,"[4] and a little later had referred to "the increased value to which all goods would rise in consequence of the rise of the wages of labour."[5]

By the beginning of 1816 we may conceive Ricardo as fully realizing the importance of the particular point at issue, and as bringing to the task of doctrinal readjustment the best thought of which he was capable. With characteristic profundity he seems to have understood that the sure way to this result was by re-analysis of the theory of value, and to a re-examination of this theory he proceeded to devote himself.

In February, 1816, he wrote to Malthus: "I have not thought much on our old subject; my difficulty is in so presenting it to the minds of others as to make them fall into the same chain of thinking as myself. If I could overcome the obstacles in the way of giving a clear insight into the

[1] Essay on the Principle of Population (2d edition, 1803), p. 458; also Observations on the Effects of the Corn Laws, p. 11.
[2] Traité d' économie politique (1803), tome 1, p. 294; cf. Ricardo. Principles (1819), p. 57, note.
[3] An Essay on the External Corn Trade (1815), p. 88.
[4] Letters of Ricardo to Malthus, p. 37.
[5] Ibid., p. 39.

original law of relative or exchangeable value, I should have gained half the battle."[1] By October of the same year (1816) definite progress had been made: "I have been very much impeded by the question of price and value, my former ideas on those points not being correct. My present view may be equally faulty, for it leads to conclusions at variance with all my preconceived opinions. I shall continue to work, if only for my own satisfaction, till I have given my theory a consistent form."[2]

The "consistent form" was attained in the first edition of the "Principles," published in the spring of 1817. The keynote of the initial chapter 'on value' was, as has already been said, far less any explicit statement or detailed exposition of the general theory of value than—going even beyond what was required—demonstration of "the compatibility of a rise of wages, with a fall of prices."[3]

Ricardo's starting-point was the familiar postulate that, as long as the relative values of commodities were measured by "embodied labour," only an increase in the amount of labor necessary to produce them could augment their value, and only a decrease would lower it. A general rise or fall in wages caused no change in prices. If "embodied labour" could thus be established as a universal measure of value, Ricardo's purpose, to prove that prices did not necessarily rise or fall as wages rose or fell, was attained. But Adam Smith, "and with him"—added McCulloch—"every other political economist down to Mr. Ricardo,"[4] had asserted that the circumstances which determined relative values "in a rude state of society"—namely, "embodied labour"—were altered when capital and land figured in economic production. Thereafter relative values were no longer measured solely by "embodied labour." Profits and rent entered as component parts into price, and the real prices of commodities were increased or diminished by

[1] Letters of Ricardo to Malthus, p. 111.
[2] Ibid., p. 120.
[3] Principles (1817), p. 42.
[4] Edinburgh Review, June, 1818, pp. 63–64.

every corresponding change in the ordinary rate of profits, the rate of wages and the rent of land.

We have seen that dissent from Adam Smith's abandonment of a "philosophical" for an "empirical" measure of value was a characteristic of the first phase of Ricardo's treatment of value. But this was, at best, the desire of a rigidly logical mind to rectify what appeared to be an illogical and unwarranted lapse. With the controversies of 1815–16 a much greater stake became the issue. It required no profound analysis to make it clear that, if the use of capital and land affected relative values in the manner Adam Smith and his successors had described, then Ricardo's several contentions were without theoretical warrant. Naturally enough, therefore, the formal purpose of the chapter 'on value' in the "Principles" became "to determine how far the effects which are avowedly produced on the exchangeable value of commodities, by the comparative quantity of labour bestowed on their production, are modified or altered by the accumulation of capital and the payment of rent."[1]

Of the two circumstances, the effect of rent payment received but brief attention, and that only, it may be suspected, to provide some logical introduction for the following chapter 'on rent.' Whatever further significance it possessed lay in the opportunity it afforded Ricardo to broaden the principle of "embodied labour" as a measure of value, so as to refer to that portion of the supply produced under the most favorable circumstances.[2] This interval once bridged, he easily dismissed the matter.

The relation of profits to the law of value was Ricardo's real concern. Two commodities respectively produced by different amounts of labor conjoined with identical amounts of capital exchanged—like commodities produced by labor

[1] Principles (1817), p. 16.

[2] Ibid., p. 67. In this particular Professor Gonner's interpretation (Introductory Essay, p. xxxiii, to his excellent edition of Ricardo's Principles) seems more accurate than Professor Patten's (Quarterly Journal of Economics, April, 1893).

alone—in proportion to "embodied labour." Even if the capitals engaged were different in amount, but identical in durability and in apportionment between fixed and circulating capital, the two commodities would exchange in proportion to the total quantity of labor respectively necessary to manufacture them and bring them to market, including in the term "total quantity" both the labor necessary to the manufacture of the commodity itself and that necessary to the formation of the capital by the aid of which it was produced. No alteration in the wages of labor nor in the profits of capital could effect any alteration in the relative value of such commodities. Nor, since the money in which they were valued was by supposition of an invariable value, could there be any alteration in the prices of such commodities.

But the situation was otherwise, if the several commodities were produced with the aid of different proportions of fixed and circulating capital, or if the quotas of fixed capitals so employed were of different durability. In proportion, Ricardo explained, as circulating capital preponderated in a manufacture or in proportion to the less durability of its fixed capital and its approach to the nature of circulating capital, any increase in wages resulted in a rise in the value of such commodities relative to the value of other commodities produced with the aid of less circulating capital or more durable fixed capital. The relative values and, assuming an invariable money standard, the prices of all such commodities were inversely affected by every alteration in wages, and directly by every alteration in profits.

The phenomena introduced into exchange relations by the employment of capitals of unlike quality—responsible for the logical break in Adam Smith's treatment of value, and glossed over, although not by any means neglected, in the first phase of Ricardo's thought—were thus clearly recognized by Ricardo, in his second phase, as exceptions to the universal applicability and rigid accuracy of "embodied labour" as a measure of value.

That this qualification should have been explicitly developed and so cheerfully acquiesced in by Ricardo was due to the fact that it afforded, if anything, superabundant proof of the particular doctrine which he was seeking primarily to establish: the absence of direct variation between wages and values. In so far as "embodied labour" prevailed as a measure of value—money being supposed, as throughout, to be of an invariable value—a rise in wages obviously involved no increase in values or prices. But, in so far as the employment of capitals of different quality modified the applicability of "embodied labour" as a unit of value, a rise in wages resulted in an actual fall in values and prices. Ricardo was, above all things, fond of a paradox-like dictum;[1] and the close reader will detect almost a note of elation in the closing paragraph of his chapter "On Value": "It appears, too, that commodities may be lowered in value in consequence of a real rise of wages; but they never can be raised from that cause. On the other hand, they may rise from a fall of wages, as they then lose the peculiar advantage of production, which wages afforded them."[2]

A theory of distribution, of which the direct implication was that the importation of foreign corn meant higher profits and lower rent, would lead naturally enough to a discussion of the principles under which such importation does or does not take place. It is not surprising therefore to find in between 'the principles of political economy' as represented by the chapters on value, rent, wages and profits, and the following chapters on 'taxation'—the notable chapter 'on foreign trade.'

Effectively as Adam Smith had disposed of the mercantilist doctrine as to foreign trade, he had failed to substitute a definite theory. As Professor Bastable has pointed out, Smith's views on the real advantage of such trade are "somewhat doubtfully expressed, while his explanation of the division of gain between two trading countries is plainly

[1] See below, pp. 120–121.
[2] Principles (1817), p. 48.

erroneous." Those who followed, notably Foster and Torrens, make important contributions, but it was Ricardo's brilliant analysis that gave a scientific theory of international trade.[1]

In the main a discussion of the principles of foreign exchange and of the considerations governing the international distribution of productive industry, Ricardo's chapter is dominated by the new doctrine that trade will take place between different countries only if, and whenever, there exists in such countries a difference in the comparative costs of producing the commodities traded in. As Cairnes has further explained the doctrine: "The commodity forming the staple of a trading country may be, and frequently is, more cheaply produced in that country than in the country which imports it, but this is not necessary to the existence of the trade; and a trade between nations may be carried on where the superiority in point of productive power with respect to all articles which form the subject of the trade is upon the side of one of them. On the other hand, a difference in the absolute cost of producing commodities in different countries does not necessarily render a trade between them possible, since, if the difference were the same in the case of each article, there would be no motive for an exchange. The one condition, therefore, at once essential to, and also sufficient for, the existence of international trade, is a difference in the comparative, as contradistinguished from the absolute, cost of producing the commodities exchanged."[2]

It was the exposition of this doctrine which McCulloch characterized as "one of the most valuable and original parts of the work" and "a striking example of Mr. Ricardo's uncommon sagacity in investigating and tracing the operation of fixed and general principles, and in disentangling and separating them from those of a secondary and accidental

[1] Bastable, Theory of International Trade (4th edition, 1903), p. 169.

[2] Cairnes, Some Leading Principles of Political Economy (1874), p. 310.

nature."[1] A decade later, John Stuart Mill began the first of his "Essays on some Unsettled Questions of Political Economy" with the declaration: "Of the truths with which political economy has been enriched by Mr. Ricardo, none has contributed more to give to that branch of knowledge the comparatively precise and scientific character which it at present bears, than the more accurate analysis which he performed of the nature of the advantage which nations derive from a mutual interchange of their production."[2]

Both doctrine and corollaries have long passed without question as distinctively Ricardian contributions. Recently however Professor Seligman has put forth the claim that as a matter of fact it was Colonel Torrens who "discovered the law of comparative cost, the credit of which is usually ascribed to Ricardo"[3]—and this dictum has been surprisingly enough incorporated in the "Appendix"[4] (1908) to Palgrave's "Dictionary of Political Economy." The charge rests upon the presence in Torrens's "Essay on the Corn Trade" published in 1815 of the theory in outline, and upon Torrens's vigorous claim in the "Preface" to the third edition of the same work published a decade later (1826), of full title to discovery of this doctrine which, he asserts, Ricardo had thereafter and without acknowledgment "adopted" into his own treatise.[5]

It is worth while to examine this contention, both for its own intrinsic importance and even more because it very well illustrates the serious error into which many critics of Ricardo's doctrines have fallen by narrowly confining attention to the printed text and failing to interpret this text in the light of Ricardo's mental history as disclosed by his informal writing.

As a matter of fact, it is not unlikely that doctrinal in-

[1] Edinburgh Review, June, 1818, p. 83.
[2] Essays on some Unsettled Questions of Political Economy (1844), p. 1.
[3] "On Some Neglected British Economists," in Economic Journal, September, 1903.
[4] Sub "Torrens."
[5] Preface, vii.

debtedness, if there was any, lay from the first from Torrens to Ricardo. The discussion of foreign trade contained in Torrens's earlier essay, "The Economists Refuted" published in 1808, suggestive as it is, contains no intimation of the law of comparative cost, but rests the entire case upon the principle of "territorial division of labor." We have no certain knowledge as to when Ricardo and Torrens first met, but in all probability this occurred soon after Ricardo's entry into the bullion controversy, and it is reasonable to suppose from the tenor of later correspondence that the two were in frequent association before the appearance of Torrens's "Corn Trade," in 1815. There is no direct reference to Ricardo in this first edition of Torrens's work—but the prefatory acknowledgment of aid "from private friendship" may possess some significance.

Certainly indebtedness to Ricardo was the case thereafter. "Have you seen Torrens' letter to Lord Liverpool," wrote Ricardo to Malthus on February 23, 1816, "He appears to me to have adopted all my views respecting profits and rent; and, in some conversation which I had with him a few days ago, he unequivocally avowed that he was now of my opinion, that the price of labour, arising from a difficulty in procuring food, did not affect the prices of commodities. He confessed that his former view on that subject was erroneous. I should be glad to see all the arguments in favour of my view of the question clearly and ably stated. I should not wonder if Torrens undertook it."[1]

Even more striking than this is the passage in a letter of Ricardo to Malthus, dated May 28, 1816—almost a year before the appearance of Ricardo's "Principles": "Major Torrens tells me that he shall work hard for the next few months, so that we may expect a book on the same subject from him next year. He continues to hold some heretical opinions on money and exchange, notwithstanding Mr. Mill and I have exerted all our eloquence to bring him to the right faith. We, however, have succeeded in removing some

[1] Letters of Ricardo to Malthus, pp. 111–112.

of the obscurity which clouds his vision on the principles of exchange. He is, I think, quite a convert to *all* what you have called my peculiar opinion on profits, rent, etc., etc., so that I may fairly say that I hold no principles on Political Economy which have not the sanction either of your or his authority, which renders it much less important that I should persevere in the task which I commenced of giving my opinions to the public. Those principles will be much more ably supported either by you or by him than I could attempt to support them."[1]

The charge which Torrens made publicly in 1826, he had made privately to Ricardo some years before, indeed hard upon the publication of the "Principles." The claim and Ricardo's reply are set forth in a letter of Ricardo to Trower of August 23, 1817: "I presented Torrens with one of the first copies of my book; he was disappointed that I had not mentioned his name in it, and wrote to me to that effect, claiming some merit as the original discoverer of some of the principles which I endeavoured to establish. I had no design of neglecting his merits, and omitted to mention him because none of his doctrines appeared to me strikingly new and did not particularly come within the scope of the subject I was treating. There were some things in his book about which I pointedly differed from him, but refrained from noting them because I knew he was sensible, they were wrong, and had adopted and was going soon to publish more correct views to the public. In the correspondence which ensued between him and me, I endeavoured to shew, and according to Mill's opinion I did shew, that on all those points which I had as I thought for the first time brought forward, his published opinions were in fact in opposition to mine, and on those which he said we agreed upon and for which he claimed the merit of originality, they were all to be found in Adam Smith or Malthus, and therefore neither of us could be called discoverers. Our altercation was carried on without the least acrimony, and ended by a com-

[1] Letters of Ricardo to Malthus, pp. 116–117.

plete restoration of cordiality, though accompanied with rather more reserve than before. He has dined with me twice since, and the last time he met Mr. Malthus for the first time and stoutly defended my doctrines, to which he is quite a convert, against Mr. Malthus' opposition to them."[1]

It was doubtless as further balm to Torrens aggrieved sensibility, rather than as any appropriate acknowledgment of indebtedness, that Ricardo inserted in the second edition of the "Principles" published in 1819 two complimentary allusions to Torrens. The first of these consisted of an illustrative sentence cited from the "Corn Trade" as to the variation in "the natural price of labor," to which Ricardo added: "The whole of this subject is most ably illustrated by Major Torrens."[2] The second allusion was inserted at the end of the chapter "On Sudden Changes in the Channels of Trade:" "Among the most able of the publications, on the impolicy of restricting the importation of corn, may be classed Major Torrens Essay on the External Corn Trade. His arguments appear to me to be unanswered, and to be unanswerable."[3] Had there been any specific indebtedness in the matter of the theory of international value, Ricardo —even though he had failed to refer thereto in the first edition—would in all reasonable certainty have made acknowledgement in the foot-note tributes which he inserted in the second.

Finally, it is not without significance that neither in his critical review of Ricardo's "Principles,"[4] nor in the second edition of his own "Corn Trade" published in 1820, nor in his "Production of Wealth," issued in 1821, did Torrens —as he did with respect to other doctrines and as he very properly might have been expected to do with respect to this—set forth claim of priority and infringement. On the contrary in the "Preface" to the second edition (1820) of the "Corn Trade" he lauds in almost extravagant terms

[1] Letters of Ricardo to Trower, pp. 39–40.
[2] Principles (1819), p. 91, note.
[3] Ibid., p. 338.
[4] Letters of Ricardo to McCulloch, pp. 15–16.

Ricardo's "very original work upon Political Economy and Taxation," apologizes for making no allusion in his treatment of profits to Ricardo's work and closes with the statement that "this general acknowledgment will be sufficient to convince the less curious reader, that in omitting to refer to Mr. Ricardo on each particular occasion in which his principles may have been embraced, it was not the intention of the Author to commit an act of plagiarism under the disguise of a different language and mode of illustration."

Only in 1826, three years after Ricardo's death, was the claim made by Torrens, and then only to be repudiated by those who knew both Ricardo and Torrens, and who can be considered as best cognizant of the doctrinal beginnings of the Ricardian economics—John R. McCulloch and John Stuart Mill.[1] Torrens was quick to charge plagiarism—to wit his intimations that Malthus had borrowed the principle of population from Wallace—whereas Ricardo was generous to a degree in acknowledging indebtedness, and it it difficult to believe in view of the definiteness of Ricardo's expressions and the lateness of Torrens's charge that there had been unrecorded "adoption" of Torrens's view.

Value, distribution and international exchange, although far from summing up the doctrinal content of the "Prin-

[1] In the Westminster Review in 1825 (January, p. 218), in the Essays on Some Unsettled Questions of Political Economy (p. 1) written in 1829–30 and in the Principles of Political Economy first published in 1848 (bk. iii, ch. xvii, § 2), John Stuart Mill ascribed authorship of the theory of foreign trade to Ricardo in almost extravagant appreciation. At some time, however, between 1857 and 1862, Mill seems to have become a convert to some part of Torrens's claim, then apparently set forth in different form and upon other warrant. In the sixth edition of Mill's Principles (1862) was inserted a foot-note to the effect, among other things, that "Colonel Torrens, by the republication of one of his early writings, The Economists Refuted, has established at least a joint claim with Mr. Ricardo to the origination of the doctrine and an exclusive one to its earliest publication." The "origination" here referred to can only have been the principle of the territorial division of labor, for it is only this, without the slightest intimation of the principle of comparative cost, that is contained in the Economists Refuted (1808); and even Torrens himself, in republishing the tract forty-nine years later, claimed priority for nothing more than this (Preface, xv, to 2nd edition, 1857, of Principles of Sir Robert Peel's Act).

ciples," certainly suggest its prime significance in the development of economic thought. Passing for the moment the twelve chapters given over to taxation—there remain twelve chapters which I have already characterized as critical additions, amendments and digressions rather than as organically related parts. Some of these stand in direct correlation with earlier chapters: as 'bounties on exportation, and prohibitions of importation' with the chapter 'on foreign trade,' and 'doctrine of Adam Smith concerning the rent of land,' and 'Mr. Malthus's opinions on rent,' with the chapter 'on rent.' Others like 'on bounties on production' and 'on currency and banks' present in succinct, didactic form the views which Ricardo had already put forth in train of practical controversies. Others still, like 'value and riches, their distinctive properties'—probably suggested by the first chapter of Say's "Traité," or 'on gross and net revenue,' clearly provoked by Adam Smith's physiocrat-like exaltation of agriculture—are the direct results of critical reading of texts, of spirited discussion with Mill, of friendly controversy with Malthus.

No single one of these can be passed over by the careful student of the Ricardian economics. Characteristically subtle in method and profound in treatment, the point of approach is often distinct and the disclosure illuminating, so that neglect of them as of Ricardo's pamphlets has too often made the remainder of the "Principles"—to borrow Mr. Cannan's phrase—"the happy hunting ground of the false interpreter." Yet all said and done, their value is supplementary rather than primary, serving to clarify and interpret Ricardo's theoretical contributions rather than to constitute such contributions in themselves.

The twelve chapters on taxation, constituting a full third of the bulk of the "Principles," likewise possess an interest and value, notable in themselves, but different from that attaching to the primary chapters on theory. In his "Sketch of the Life and Writings of Dr. Smith," Dugald Stewart observed—and to McCulloch the observation seems "per-

fectly just"[1]—that Adam Smith's treatment of the subject of taxation was "more loose and unsatisfactory than most of the others which have fallen under his review."[2]

Ricardo probably shared this opinion to greater or less degree and some part of his early dissent from the "Wealth of Nations" had to do with the subject of taxation—the more, as with the progress of the Napoleonic contest the public burden became onerous. But here as throughout, the corn-law rent controversy and specifically, Malthus's "Inquiry into the Nature and Progress of Rent" marked a distinct phase, and in the "Essay on the Influence of a Low Price of Corn on the Profits of Stock," Ricardo characterized Malthus's pamphlet as "a work abounding in original ideas,—which are useful not only as they regard rent, but as connected with the question of taxation; perhaps, the most difficult and intricate of all the subjects on which Political Economy treats."[3]

The chapters on taxation of the "Principles" resolve themselves into a rigidly logical deduction, as to the incidence of the several forms of taxation, with respect to Ricardo's theory of distribution. A tax on rent will be borne by the landlord. Taxes on produce, tithes and land taxes will fall on the consumer. A tax on profits will be ultimately borne by the producer. A tax on wages will always be shifted to profits. The simplicity of the premises, the rigor of the argument, the certainty of the conclusion have suggested the term the "absolute theory" as descriptive of Ricardo's as indeed of Adam Smith's doctrines of incidence.[4] But in the light of its context, Ricardo's analysis is "absolute" only in the sense in which any statement of a scientific tendency is enunciated in definite terms. Ricardo knew prefectly well that the complexity of practical affairs qualified and even counteracted the normal tendencies, and

[1] Edinburgh Review, June, 1818: "On Ricardo's Principles of Political Economy and Taxation," p. 83.
[2] Works, vol. x, p. 69.
[3] In Works, p. 374, n.
[4] Seligman, The Shifting and Incidence of Taxation (3d edit., 1910), pp. 147–151.

upon more than one accasion gave evidence of this. A few years later, possibly in consequence of his parliamentary experience, he not only shared Hutches Trower's "regret that the imporant subject of taxation receives so little attention from Political Economists," being "at this time—peculiarly important;" but he wrote to Malthus—in far from the spirit of one who deems the last word to have been spoken—"As soon as you have launched your present work, I hope you will immediately prepare to give us your thoughts on a subject in which we are all practically interested."[1] Two years after the "Principles" was published he freely admitted that "On the subject of taxation a wide field is open for those, who will patiently think, to give instruction to the Public"; but he insisted that "the first step must be to make the first principles of Political Economy known, and that yet remains to be done." As late as 1821 he was still conscious of the gap: "I, as well as you," he wrote to Trower, "would like to see an application of the Principles of Political Economy, as now understood, to the practical operation of taxation, and I hope it will not be long before such a work appears,"—adding in characteristic self-depreciation, "You make a great mistake in supposing me capable of producing so important a work."[2]

The third phase in the development of Ricardo's economic system, extending from the appearance of the "Principles" in 1817 to his sudden death in 1823, consists of certain minor but significant additions and amendments directly traceable to doctrinal controversies with friends and correspondents,—Malthus, Mill, McCulloch, Torrens, Trower and Say. Of these modifications the most important has to do with the theory of value, and the most radical with the influence of machinery.

At the outset Ricardo undoubtedly shared the optimism of Adam Smith and the economic liberals that despite the inconveniences and losses of temporary displacement the

[1] Letters of Ricardo to Malthus, pp. 164–165.
[2] Letters of Ricardo to Trower, pp. 83, 163.

introduction of machinery into industry redounded to the advantage of the wage-earners and of society in general. "Ever since I first turned my attention to questions of political economy,"—he confessed in 1821—"I have been of opinion, that such an application of machinery to any branch of production, as should have the effect of saving labour, was a general good, accompanied only with that portion of inconvenience which in most cases attends the removal of capital and labour from one employment to another."[1]

Thus in 1815, in the "Essay," Ricardo had pointed out that the certain tendency of a low money price of corn "for a long time to ameliorate the condition of the labouring classes . . . would be nearly the same as the effects of improved machinery, which it is now no longer questioned, has a decided tendency to raise the real wages of labour."[2] In the first and second editions of the "Principles," this view seems to have been taken more or less for granted, the only reference to machinery being an incidental allusion: "Thus then is the public benefited by machinery: these mute agents are always the produce of much less labour than that which they displace, even when they are of the same money value."[3]

Twelve months later, when McCulloch, in a paper on "Taxation and the Corn Laws" in the Edinburgh Review (January, 1820) declared: "The fixed capital invested in a machine must always displace a considerably greater quantity of circulating capital,—for otherwise there could be no motive to its erection; and hence its first effect is to sink rather than to increase the rate of wages"—Ricardo promptly demurred: "The employment of machinery I think never diminishes the demand for labour—it is never a cause of a fall in the price of labour, but the effect of its rise. If one man erected a steam engine because it was just cheaper to employ the engine than human labour, and if this were followed by a fall in the price of labour, it would be no

[1] Principles (1821), pp. 466–7.
[2] Essay, p. 40.
[3] Principles (1819), p. 39.

other man's interest to prefer also the use of the machine."[1]

But at some time in between 1819 and 1821 Ricardo's views upon this subject underwent what he himself termed "a considerable change." The third edition of the "Principles" appeared in 1821 with a new chapter 'on the subject of Machinery, and on the effects of its improvement on the interests of the different classes of the State.' Ricardo gives no other explanation of the origin of the change than "further reflection," and the only clue is that afforded by the citation in the chapter of a paragraph from Barton's tract "On the Condition of the Labouring Classes of Society," with commendatory expressions: "Mr. Barton, in the above publication, has, I think, taken a correct view of some of the effects of an increasing amount of fixed capital on the conditions of the labouring classes. His Essay contains much valuable information."[2]

Ricardo's contention is, in brief, that when "improved machinery is *suddenly* discovered, and extensively used"—capital will be diverted from existing employment, instead of being saved and accumulated as happens when "discoveries are gradual." In the case of such diversion there may result "a diminution of gross produce; and whenever that is the case, it will be injurious to the labouring class, as some of their number will be thrown out of employment, and population will become redundant, compared with the funds which are to employ it."[3]

Immediately upon its appearance, Ricardo caused a copy of the new edition of the "Principles" to be sent to McCulloch. Nothing more than bare intimation of a radical change in view preceded actual transmission of the printed chapter, and the effect upon McCulloch, who in an article in the Edinburgh Review (March, 1821) on the "Effects of Machinery and Accumulation"—had just declared: "no improvement of machinery can possibly diminish the demand for labour, or reduce the rate of wages," was dismay

[1] Letters of Ricardo to McCulloch, p. 57.
[2] Principles (1821), p. 480 n.
[3] Ibid., pp. 472, 478.

and indignation.[1] In forwarding the volume Ricardo invited criticism and the warmth of the reply suggests how deeply the soul of the Scotch economist was harrowed at the fancied apostasy; "it will arm those who have contended that Political Economy is a fabric without a foundation, with any additional arguments in favor of that opinion" . . . "little did I expect after reading your triumphant answer to the arguments of Mr. Malthus that you were so soon to shake hands with him, and to give up all."[2]

Ricardo's response was characteristically modest but firm, and the vindication which accompanied it helpfully supplements the formal exposition of his changed thought.[3] The issue having been clearly defined, further discussion was by tacit consent omitted. But Ricardo lost no legitimate opportunity to reassert his opinion,[4] and McCulloch's attitude had in 1825 so far changed that he could speak of the "Case supposed by Mr. Ricardo, with respect to Machinery" as "possible, but exceedingly unlikely ever to occur."[5]

Ricardo's "Principles of Political Economy and Taxation" was published in the spring of 1817. We have seen that the treatment of value therein contained was designed less as an independent exposition than as a warrant for the proposition that higher wages do not necessarily mean higher prices. But, just as in the case of Malthus's first statement of "the principle of population," it was less the

[1] Letters of Ricardo to McCulloch, p. 103.
[2] Ibid., pp. 105–106.
[3] Ibid., p. 105.
[4] On June 25, 1821—a week after he had written to McCulloch as above—Ricardo presided over a meeting of the recently organized Political Economy Club, and proposed the following query for discussion: "Whether Machinery has a tendency to diminish the demand for labour?" At the two succeeding meetings (December 3, 1821, and January 14, 1822), the discussion was postponed in consequence of Ricardo's absence from London. On February 4, 1822, the topic was considered; "but I could hardly satisfy myself of the general opinion"—Ricardo wrote to McCulloch a few days later. Further discussion was again postponed to a later meeting when Mill and Torrens might be present, but it was not then resumed.
[5] Principles of Political Economy (1825), p. 165.

conclusion than the argument which was assailed. Ricardo found himself called upon not to establish any such novel proposition as that prices sometimes fell as wages rose, but more fundamentally to vindicate "embodied labour" as the soundest theoretical and the best practical measure of value.

This controversy appears to have begun with the appearance of McCulloch's highly laudatory notice of Ricardo's book in the Edinburgh Review for June, 1818. Six months earlier McCulloch, writing in the Scotsman, had defended certain of Ricardo's doctrines from a violent attack in the British Review.[1] But the ampler space of the quarterly first enabled him to present "an accurate exposition of the nature, as well of those general principles which Mr. Ricardo has been the first to ascertain, as of those which he has adopted from late writers, and combined with the others into one harmonious, consistent, and beautiful system."[2] Disproportionate in plan, marred by occasional inaccuracy and artificial simplicity, the review was nevertheless characterized by all of the intelligibleness and definiteness of McCulloch's expository writing. It is still to be read with profit by the troubled student of the Ricardian economics, while for the period in which and the circles for whom it was written it was nothing short of a boon. Even James Mill regarded it as "a masterly essay on the science, [and one that] will very much assist to disseminate correct views on a very intricate part of it."[3]

The theory of value and the use of "embodied labour" as its measure figured as the starting-point of McCulloch's exposition. Thereafter the propositions that the accumulation of capital and the payment of rent have no effect whatever in increasing the real price of commodities, and that a rise of wages is never followed by an increase of prices, were developed and stated with a precise absoluteness that could not fail to challenge rejoinder from those who were already on the verge of dissent.

[1] Letters of Ricardo to Malthus, pp. 145, 146.
[2] Edinburgh Review, June, 1818, p. 87.
[3] Letters of Ricardo to McCulloch, p. 11.

The first serious protest came from Torrens, in his "Strictures on Mr. Ricardo's Doctrine respecting Exchangeable Value" in the Edinburgh Magazine and Literary Miscellany of October, 1818. Some time before, Ricardo and Torrens had had "a long conversation on this question, without convincing each other";[1] but the public criticism clarified the issue and compelled attention. Adam Smith had been careful, Torrens stated, to limit the principle that the quantity of labor measures value to the first and rude state of society; and Ricardo, in going further, had gone wrong. Ricardo admitted that the principle which he had asserted would not hold of capitals possessing unequal degrees of durability, but said they were exceptional cases. They were not the exceptional, but the common cases, replied Torrens, and therefore Ricardo's principles were entirely subverted by them. Even when the capitals possessed equal durability, the labor which they put in motion might be different and unequal; but competition would still bring the value of the products to the same point. Hence, although equal values no doubt emerged when equal capitals set equal quantities of labor in motion, there need be no necessary connection between the two circumstances, and the values might be equal in quite different cases also. It was not, therefore, the quantity of labor that determined exchangeable value; and Ricardo had mistaken "an accidental coincidence for a necessary connexion." The writer summed up: "Whenever capitals consist of different proportions of raw materials and wages, whenever the rate of wages happens to go higher in one business than in another, whenever capitals are of different degrees of durability, and whenever being of equal durability, the expenditure for wages is different, the value of the products will not be in proportion to the quantity of labour employed on them."[2]

McCulloch promptly supplemented his service as expositor by activity as champion. In the very next issue of the same magazine he undertook to explain that under the term

[1] Letters of Ricardo to McCulloch, p. 14.
[2] Ibid., p. 16.

"labour" Ricardo included not only the labor employed on the capital after its accumulation, but the labour employed in actually accumulating capital, "the labour expended in forming the capital." In short, "What is capital but accumulated labour?"[1]

But McCulloch's explanation was much too limited and unreal to be entirely acceptable to Ricardo. Moreover, Torrens's criticisms were supplemented by similar expressions from other quarters. As early as September, 1817, Malthus had given Ricardo's work a second careful perusal, and had found the measure of value—in Ricardo's phrase, one of "a very few important points on which we materially differ"—and had won from him the free admission that the proposed theory of value did not hold good in different countries when profits were different.[2] Similarly, some months later, the outcome of discussions between Lord King, Wishaw, and Malthus, was recorded by Ricardo as agreement that "the measure of value is not what I have represented it to be."[3]

It is likely that such criticisms strengthened the conviction, present to some extent from the first in Ricardo's mind, that the claim of "embodied labour" to serve as a measure of value must be relative rather than absolute excellence. The demands of his publisher for a second edition of the "Principles of Political Economy and Taxation" opportunely permitted some formal expression to this belief; and, when the book actually appeared early in 1819, the initial chapter 'on value' contained textual changes which, although not vital,[4] may, in the light of what had gone before, be regarded as highly significant. The formal break marking the limit of the first statement of the theory of value had disappeared. The text of the chapter was

[1] Letters of Ricardo to McCulloch, p. 16; see also Letters of Ricardo to Trower, p. 66.

[2] Letters of Ricardo to Malthus, p. 139.

[3] Ibid., p. 148.

[4] The edition "has nothing new in it, as I have not had the courage to recast it," wrote Ricardo to Say on January 11, 1820; see Letters of Ricardo to Malthus, p. 166.

divided into five sections with italicized summary headings, which, read in sequence, clearly suggest the passing of the prime purpose of the chapter from demonstration of the proposition that higher wages do not necessarily mean higher prices to a more accurately qualified statement of the practicability of "embodied labour" as a measure of value. Careful examination of the limited number of changes introduced in the text of the chapter itself confirms this impression, and reveals a visible effort to make the chapter turn thenceforth upon the measure of value rather than upon correlated dicta.[1] Whatever Ricardo's intention may have been, and whether in consequence of Torrens's criticisms or for other reasons, certainly, as far as formal expression is concerned, the second edition of the "Principles" showed an appreciable increase of reserve in the advocacy of "embodied labour" as a universal measure of value.

In the early spring of 1820 appeared Malthus's "Principles of Political Economy" with an entire section devoted to a vigorous and effective criticism of the adequacy 'of the labour which a commodity has cost, considered as a measure of exchangeable value.' Even more clearly than Torrens, Malthus emphasized the impracticability of the labour measure in the case of commodities produced by different proportions of fixed and circulating capital or by identical amounts of capital used for unequal periods of time. To these admitted exceptions to Ricardo's measure he added three new categories, arising respectively from (*a*) "the quantity of foreign commodities used in manufactures," (*b*) "the acknowledged effects of taxation," and (*c*) "the almost universal prevalence of rent in the actual state of all improved countries."[2] Malthus accordingly reached the

[1] Thus see the last paragraph of page 33 of the first edition, replaced by the last paragraph of page 31 of the second edition; the last paragraph of page 41 of the first edition, replaced by the last paragraph of page 39 of the second edition; and, most noteworthy, the three concluding paragraphs of pages 47–48 of the first edition, reduced by compression and omission to the less prominently placed paragraphs terminating section v. (pages 39–40 of the second edition).

[2] Principles of Political Economy (1820), p. 104.

definite conclusion that the quantity of labour which a commodity has cost in its production is neither a correct measure of relative value at the same time and at the same place nor a measure of real value in exchange in different countries and at different periods.[1]

Had Malthus, like Torrens, stopped with negative criticisms, his position would have been secure. But the positive measure proposed by him in substitution—"a mean between corn and labour"—was as empirical as it was curious, and served merely to weaken his prime attack.

No less promptly than upon the occasion of Torrens's criticisms did McCulloch enter the lists in defence of Ricardo's doctrine against Malthus's attack, this time in the columns of the Scotsman. With the general tenor of the vindication Ricardo appears to have been content. "You have with your usual ability"—he wrote in acknowledgment—"met Mr. Malthus on what I consider his strongest ground," and then, in pleased acceptance of discipleship, "I assure you that I am highly gratified in having succeeded so well in my imperfect statements, as to engage you in their defence, for I should have no chance of procuring their admission into other people's minds, without your powerful assistance."[2]

But Ricardo was his own severest critic; and, however satisfactorily McCulloch's formalism might explain away the specific objections of commentators, it failed to restore tranquillity to the author's mind. The cases which had before been recognized as "exceptional" now began to take on co-ordinate importance; and, writing to McCulloch in May, 1820, Ricardo declared: "After the best consideration that I can give to the subject, I think that there are two causes which occasion variations in the relative value of commodities: 1st, the relative quantity of labour required to produce them; 2nd, the relative times that must elapse before the result of such labour can be brought to market. All the questions of fixed capital come under the

[1] Letters of Ricardo to McCulloch, p. 108.
[2] Ibid., p. 63.

second rule, which I will endeavour to explain if you should wish it."[1]

This first explicit recognition of the co-ordinate influence of production-time in determining relative value—destined to remain thereafter an unsurmountable barrier in Ricardo's mind to the universal validity of the labour measure—made McCulloch fairly "tremble for the ark of his covenant," and we may well conceive the troubled inquiry which came from Edinburgh to London. Ricardo responded with a clear exposition of "the effects which the relative times before commodities can be brought to market have on their prices, or rather on their relative value."[2] The particular point at issue was the impracticability of Malthus's proposed measure of value rather than the entire accuracy of Ricardo's. Having expressed himself in no uncertain tone upon this matter, Ricardo added with characteristic frankness: "It must be confessed that this subject of value is encompassed with difficulties. I shall be very glad if you succeed in unravelling them, and establish for us a measure of value which shall not be liable to the objections which have been brought against all those hitherto proposed. I sometimes think that if I were to write the chapter on value again which is in my book, I should acknowledge that the relative value of commodities was regulated by two causes instead of by one, namely, by the relative quantity of labour necessary to produce the commodities in question, and by the rate of profit for the time that the capital remained dormant, and until the commodities were brought to market. Perhaps, I should find the difficulties nearly as great in this view of the subject as in that which I have adopted."[3]

It is likely that in the detailed "Notes on Malthus," written in the autumn of 1820, Ricardo fulfilled something of the intention herein expressed. But yielding to the counsel of McCulloch and Mill to avoid giving his treatise

[1] Letters of Ricardo to McCulloch, p. 65.
[2] Ibid., p. 69.
[3] Ibid., pp. 71–72.

too controversial a character, this commentary was withheld from publication, and the missing manuscript still remains an important desideratum in the study of Ricardo's economic system.[1]

By the end of 1820, however, Murray, the publisher, had again begun to clamor for a new edition of the "Principles of Political Economy and Taxation";[2] and Ricardo was enabled to realize in some degree his definitely conceived purpose. The urgency of the printer (the chapter 'on value' forming the first sheets), Ricardo's unwillingness to enlarge the book greatly or to increase its controversial elements,[3] uncertainty as to the future of the "Notes on Malthus," and, most of all, the actual existence of a chapter 'on value,' resulted in "a few additions to the first chapter," designed "to explain more fully than in the last [edition] my opinion on the difficult subject of VALUE,"[4] instead of the thoroughgoing-reconstruction which might have resulted "if I were to write the chapter on value again."[5]

But, withal, the chapter 'on value' in the "Principles" of 1821 is in content and tendency very different from that in the original edition of 1817 and a conspicuous though logical advance over that in the edition of 1819. Ricardo's purpose, first and foremost, was no longer to refute the proposition that higher wages were the cause of higher prices, but to show that embodied labor was the most practicable measure of value and that gold was its most serviceable standard expression. The "received doctrines" of Adam Smith and succeeding writers, that a rise in the price of labor would be followed by a rise in the price of all commodities, was disproved by inference rather than in detail; and the compatibility of higher wages and lower prices was relegated to incidental statement.[6] On the other hand, the

[1] The Notes would have occupied about 150 printed pages, and would probably have appeared as an appendix to the third edition of the Principles; cf. Letters of Ricardo to Trower, p. 141.
[2] Letters of Ricardo to McCulloch, p. 87.
[3] Letters of Ricardo to Malthus, p. 172.
[4] Advertisement to the Third Edition of the Principles, ix.
[5] Letters of Ricardo to McCulloch, p. 71.
[6] Principles (1821), p. 45.

exceptions to the universal applicability of "embodied labour" as a measure of value were no longer glossed over as negligible, but described in sequence. Alterations in the rate of profits were recognized as co-ordinate in kind, though not in degree, with "embodied labour" as a determinant of value. Ricardo asserted with a new distinctness that "it would be wrong wholly to omit the consideration of the effect produced" thereby; and if, he added, "it would be equally incorrect to attach more importance to it,"[1] it was for the reason that "this cause of the variation of commodities is comparatively slight in its effects."[2] Thenceforth the prominence of "embodied labour" in Ricardo's treatment of value, to the relative neglect of other influences, was the result of deliberate convention rather than of culpable neglect.[3]

To both James Mill and McCulloch the modified views of Ricardo appear to have given concern. In the spring of 1821, hard upon the heels of the third edition of Ricardo's "Principles," appeared Mill's "Elements of Political Economy," designed, as Ricardo wrote to McCulloch, "to steer clear if possible of the difficult word value."[4] But it was the difficulties of the concept rather than the concept itself which were avoided; for Mill restated the theory of a "labour embodied" measure with absolute, uncompromising rigidity. Beyond admitting that, "In estimating equal quantities of labour, an allowance would, of course, be included for different degrees of hardness and skill,"[5] he recognized none of the exceptions to the measure which Ricardo described. Capital was merely "*hoarded* labour, that which has been the result of former labour, and either is applied in aid of the immediate labour, or is the subject-matter upon which it is bestowed."[6] Three years later Mill took notice of the time element in value measurement, only to deny vigorously

[1] Principles (1821), p. 33.
[2] Ibid., p. 32.
[3] Ibid., pp. 33–34.
Letters of Ricardo to McCulloch, p. 92.
Elements of Political Economy (1821), p. 72.
Ibid., p. 75.

its influence.[1] But in 1821 he could sum up decisively, "It thus appears, by the clearest evidence, that quantity of labour, in the last resort, determines the proportion in which commodities exchange for one another."[2]

Some intimation has already been given of McCulloch's anxiety.[3] The discussion on value in Ricardo's "Notes on Malthus" appears to have caused further concern,[4] and Ricardo himself sought by preparatory explanation to soften the blow which he knew would fall with the appearance of the third edition of the "Principles."[5] But McCulloch, like Mill, was unyielding, and continued to maintain in his private classes and public lectures in Edinburgh a rigid labor measure.[6] Early in 1822 he submitted his manuscript notes to Ricardo;[7] and, if in the resultant criticism the issue was not emphasized, the difference was none the less clear and substantial.[8]

Parliamentary duties, corn-law agitation, fiscal discussions, and a continental tour absorbed Ricardo's time and attention during 1822. But early in 1823, probably in consequence of the discussion, in Parliament and out, of the effects of the Bank's resumption of specie payments upon general prices, the subject of value again became of high theoretical interest to the little coterie of economists of which Ricardo had become an important member. At a meeting of the Political Economy Club on February 3, 1823, with Torrens in the chair and with Malthus, Ricardo, Tooke, Mill, and Mushet among those present, a subject of discussion (proposed by Torrens) was, "What are the circumstances which determine the exchangeable value of commodi-

[1] Elements of Political Economy (2d edition, 1824), p. 95 et seq.
[2] Ibid. (1821), p. 74.
[3] See p. 108 above.
[4] Letters of Ricardo to McCulloch, p. 94.
[5] Ibid., pp. 94–96.
[6] Ibid., p. 118; cf. also McCulloch, Discourse on the Rise, Progress, Peculiar Objects, and Importance of Political Economy (1824), p. 66 et seq.
[7] Letters of Ricardo to McCulloch, pp. 128, 132.
[8] Ibid., pp. 131, 132.

ties?"[1] The minutes of the Club note significantly, "This last question was adjourned till the next meeting"—a procedure which suggests Maria Edgeworth's story of the gentleman who answered "when asked if he would be of the famous Political Economy Club, that he would, whenever he could find two members of it that agree in any one point."[2] Two months later, however, debate upon the same topic was resumed;[3] and at a third meeting the related query, "Can there be an increase of Riches without an increase of Value?" was discussed.[4]

This theoretical debate was supplemented by the appearance early in 1823 of Blake's "Observations on the Expenditure of Government" and Malthus's "Measure of Value," and a little later by Western's motion in the House of Commons for the appointment of a committee to inquire into the effects of resumption. In each case the questions involved were, whether the alteration in prices was due to an appreciation of gold or to a depreciation of paper, and what standard measure afforded the best means of determining this fact.

Of the three circumstances, Malthus's tract came to Ricardo as the most direct challenge. Abandoning his earlier proposal of 1820 of a mean between corn and labor as a measure of value,[5] and more dissatisfied than ever with Ricardo's proposed measure, Malthus announced his definite adherence to the "labour commanded" theory of Adam Smith. He asserted that relative value was measured by the amount of "accumulated and immediate labour ex-

[1] Minutes and Proceedings, 1821–82, vol. iv, p. 56. The discussion was originally fixed for the meeting held on December 2, 1822, and it was Torrens's comments thereon in The Traveller which evoked John Stuart Mill's earliest economic writing.

[2] Life and Letters of Maria Edgeworth, vol. ii, p. 408.

[3] Minutes and Proceedings, 1821–82, vol. iv, p. 57. Sir Henry Parnell presided; and Tooke, Senior, Warburton, James Mill, Grote, Malthus, Ricardo, and J. S. Mill (as a visitor) were present.

[4] Minutes and Proceedings, 1821–82, vol. iv, p. 59. McCulloch was present as a visitor. This was the last meeting held in Ricardo's lifetime; but the subject of value continued to engage the attention of the club for some time thereafter.

[5] Measure of Value, p. 23, note.

pended on the commodity, together with the ordinary profits estimated upon such advances."[1] But this composite "must necessarily be the same as the quantity of labour which they will command;"[2] and, since the quantity of labor worked up in a commodity could not in many cases be practically ascertained, whereas the amount of labor which it would command was evident and palpable, the "commanded labour" theory was at once theoretically sound and practically serviceable.

The animated controversy which continued through the spring and summer of 1823 formed the final episode of Ricardo's scientific life. Long letters relating thereto passed between Ricardo and Malthus, and were summarized or actually transmitted with detailed commentaries to Trower and McCulloch. Mrs. Grote tells of dinners at "Threddle" where Mill, Ricardo, and McCulloch (then visiting London, and later Gatcomb Park) had interminable discussions upon the measure of value.[3] Similarly, Ricardo wrote to Trower that Warburton and Torrens—to say nothing, doubtless, of Blake and Tooke and other members of the group—had "their particular view" as to a proper measure of value.[4]

In so far as this final contribution of Ricardo to the value controversy possessed any distinctive characteristic, it was the prominence accorded gold as a practical rather than "embodied labour" as an ideal measure of value. This was in part a reflex of contemporary Parliamentary debate, in part a reaction from McCulloch's insistence upon "the mathematical accuracy"[5] of the labor measure. As against all of his adversaries, Ricardo continued to assert that an invariable measure of value was unobtainable, and that we can only make "the best choice amongst confessedly imperfect measures."[6] To McCulloch and Mill he made further answer that a rigid labor measure accounted for

[1] Measure of Value, p. 14.
[2] Ibid., p. 16.
[3] Bain, James Mill, p. 208.
[4] Letters of Ricardo to Trower, p. 206.
[5] Letters of Ricardo to McCulloch, p. 174.
[6] Ibid., p. 177.

variations arising from more or less labor being required to produce commodities, but that it failed with respect to variations brought about by the use of varying proportions of labor and capital. "For these variations," he added, "there has never been, and I think never will be, any perfect measure of value."[1] To Malthus he similarly replied that, inasmuch as the great mass of commodities awaiting exchange were produced by the union of labor and capital for a certain length of time rather than by either labor or capital alone, a measure of value such as money, compounded of two elements, wages and profits, was more serviceable for practical purposes than a measure representing wages alone, such as "embodied labour," or profits alone, such as old oak-trees or a pipe of old wine.

It is idle to conjecture to what extent Ricardo, had his life been spared a few years longer, would have penetrated further into the value maze. He had come to a full sense of its intricacy, and had passed beyond the stage of disputation. Certainly, he would never have remained long quiescent in doctrinal agnosticism. All that we know of his intellectual tenacity and his logical method suggest that he would have forged steadily ahead, ultimately to attain, if not the central truth, at least a station far in advance of his disciples and his critics, and not far removed from that which his most sympathetic interpreters have been inclined to accord him.[2]

[1] Letters of Ricardo to McCulloch, p. 173.

[2] See in this connection Professor Marshall's remarkable note on "Ricardo's Theory of Value" in Principles of Economics (5th ed., 1907), pp. 813–821, to which the present writer, like so many other students of the Ricardian economics, is greatly indebted.

III

The Influence

In describing the life and the work of David Ricardo as a political economist, the difficulties that present themselves are in the main those of interpretation and exposition. There is a definite and tangible subject-matter, sometimes elusive, often obscure, but yet capable of positive study, and repaying cautious and sympathetic effort with secure and instructive result.

When, however, we turn to the influence of Ricardo upon the progress of economic science, a very different problem presents itself. We have here to do with an indefinite and intangible *materiél,* not only intricate and complex in itself, but essentially subjective in decipherment. To trace the specific influence of an organically related element in the development of a science, and above all, of a social science, is too often a baffling inquiry. Organized knowledge as to men, their thoughts, their activities, not only affects, as it is affected by, the very elements studied; but it reveals, over and above this, the impress of environment, of association, of contact, and even of accidental circumstance.

This is the familiar problem of doctrinal history in the social sciences. But in the case of Ricardo the ordinary difficulties of intricate interrelation and puzzling valuation are aggravated by new, and happily for the historian of general economic thought, unusual elements. We have to do not merely with a conspicuous figure in a normal sequence, after the manner of much scientific progress in the nineteenth century, but with an abrupt and radical change, a veritable doctrinal cataclysm, of which the manifestation is obvious but the cause subtle.

Bitter as have been the controversies as to the nature and causes of Ricardo's influence upon economic science, there

is an impressive unanimity as to the reality of this influence. One body of opinion ascribes most of the form and much of the content of political economy in its present accepted phase to Ricardo. Another group insist with Jevons that this "able but wrong-headed man—shunted the car of Economic science on to a wrong line." A third point out that current enlightenment upon many important practical economic policies traces back to Ricardo's illuminating analyses, and a fourth rejoin that the great follies of economic radicalism which have embarrassed and delayed social progress in the last half century are Ricardian in derivation. All of these alike bear testimony to a fundamental impress and a far-reaching consequence.

At the outset I propose to consider the conditions—some personal, some objective—which made it possible for Ricardo to exercise so important and so enduring an influence upon economic thought. This will lead naturally to a review of the specific elements which make up that influence and perhaps, in conclusion, to some appraisal.

The conditions of English economic life in the closing years of the Napoleonic War were, as has been noted, of a kind to elicit a new economic theory. When Adam Smith, a half century before, projected and outlined "the inquiry into the nature and causes of the wealth of nations," his purpose was like that of every serious economic thinker of the hundred and fifty years preceding, to make clear in what manner the well-being of the nation might be enhanced. He was convinced that the general policy of industrial regulation, conceived though it had been with a view to benefiting the energy which it affected, not only failed to accomplish the end desired but embarrassed and checked productive enterprise. On the other hand, he appreciated the reactionary quality of French economic philosophy, and the extravagances of its practical formulae.

The "Wealth of Nations" was thus in direct succession to the long line of answers to the perennially recurring question "How can a country become rich and strong, and

the people in it comfortable and happy?" It was the question which North, Petty, Berkeley, Cantillon, Hume, Steuart —to single out only the more conspicuous names—propounded and attempted with varying success to answer. Even obscure pamphleteers of the eighteenth century reflected the same attitude. Thus the anonymous author of "Reflections on the Welfare and Prosperity of Great Britain in the Present Crisis"[1] declares "I must therefore desire the Reader to understand, Welfare and Prosperity, in the Vulgar, not in the Philosophical sense of the Words, to agree with me; that to be happy, is to be rich; that Wealth gives Lustre and Dignity; that Money, Commodities, Stock, &c., are Wealth; and consequently that I intend by the Welfare and Prosperity of the Nation, its Opulence, Power, and Preeminence. To support which Power, Opulence, &c., is the Object of my present Theme."

Far be it, to suggest any comparison in content between the works of these writers, partial and tract-like as they often were, with Adam Smith's great treatise. It is enough to contend that their purpose was, as that of Adam Smith, a reflex of national endeavor from the time of Oliver Cromwell: "How could England be made strong and her people prosperous!" The genius of Adam Smith showed itself in the wonderful acumen with which he discerned the advent of an industrial era, not necessarily the coming of 'the giant industry,' for he was philosopher not seer, but in his unerring recognition that labor, industry, intelligence, frugality, and not legislative policy and administrative interference were the avenues to national welfare.

We have seen how, in the notable years between the war with the American colonies and the final overthrow of Napoleon, a new and radically different problem became the concern of the serious observers of English economic conditions. It was no longer a question of how that nation could become rich. Machinery, motive power, the factory system, capitalistic organization, the growth of population, the

[1] London, 1756; p. 2.

amassing of huge industrial profits, the swelling volume of exported manufactures, the passing of England from a grain exporting to a food importing country—had all made unmistakably clear that the wealth of a country depended upon the quantity and the quality of its land, labor and capital, and that the greatest of these was labor. The theoretical principles underlying the productive process still awaited analysis and the normal development of economic science would have been in pursuit of this inquiry. But the productive mechanism itself was fairly well realized and before attention could be given to the more rarified speculation a new and compelling group of phenomena had diverted economic thought.

I refer of course to the prominence which, let us say, from 1797, the year of the Bank restriction, practical politics, philosophical speculation and economic judgment alike gave to the question, not any longer, how much wealth does the nation produce, or as very properly might have been asked, in what manner is that wealth produced; but, in quite a different spirit, what are the principles governing the partition of that wealth, or rather of its annual increment among economic classes! In a word, the problem of production though far from solved was for the time being eclipsed, and the problem of distribution loomed up in commanding importance.

In France, thanks to the social stratification of the ancient regime, this transition in economic interest had already been effected, and such attention as Adam Smith gave to the problem of economic distribution was undoubtedly due to physiocratic influence. But in England the seed fell on sterile ground. Not until parliament was called upon to determine whether legislative policy should be shaped, first, in the matter of the Bank, in the interest of debtor or of creditor; second, in the matter of corn laws, in the interest of agriculturalist, rather than of manufacturer; third, with respect to taxation and funding, in the interest of consumer instead of property owner—not until then was it

that the economic thinker, deriving his philosophical creed from the new utilitarianism felt impelled to inquire what will be the natural shares of these several classes, destined to be affected in one way or another by this contemplated legislation.

From 1800 on, the most acute economic thinkers began to turn from the, until then, definitive text of the "Wealth of Nations" and to press their inquiry along these lines left vague or fragmentary by Adam Smith. Long before the corn law issue of 1813–14 brought the debate to some culmination, Malthus, West, Torrens, and probably even Ricardo had undertaken to analyze the principles determining the relative shares of rent, profits, and wages. Such inquiries were not merely a philosopher's quest but a direct response to the inarticulate interest of the ordinary man of affairs. It was certain that sooner or later a clear and definite answer would be given to this interest and equally certain that if given in logical compact form it would win acceptance both from the economic fraternity and from the thinking public.

The time being ripe, the man was forthcoming. It is a commonplace to speak of Ricardo's business career as a clue to the quality and influence of his economic contributions. But such an objective explanation is uninforming. A truer and certainly a more illuminating interpretation is to say that those qualities of mind, in part a race heritage, in part a distinctively personal endowment, refined and intensified by education, apprenticeship, tutelage and experience—those very qualities which enabled Ricardo to outstrip so many of his competitors in the world of affairs inclined him to the interested pursuit of natural science and to brilliantly successful cultivation of economic analysis.

Of this equipment the most conspicuous fact was a remarkable degree of what might be described as mental dissociation. Ricardo was able to view—to the extent that no economist before or since has attained—a complex phenomenon, to single out therefrom one primary element, and

to trace its ultimate course free from the modifying or counteracting influence of opposed forces.[1] This habit of mind is, I think, the essential explanation of his brilliant achievements in the financial world. At a time when the money markets of Europe were in acute convulsion, and when political crisis, industrial revolution, agricultural disturbance had combined in one apparently inextricable conglomerate, it was that isolating power of Ricardo's mind, made effective by unerring logic and intellectual fortitude, which soon made him a conspicuous figure in the banking world. A man so constituted would naturally enough find recreation, if only as a sympathetic onlooker, in natural science. When Ricardo's mind centered upon economic analysis, attracted by the subject matter, challenged by the defects of the accepted exposition, and impelled by the press of contemporary issues, it was inevitable that his intellectual processes should be exactly of a kind with those that had signalized both his vocation and his avocation.

A French scholar in a recent critical study of Ricardo has dryly questioned whether obscurity of style ever injures one's fame, and that in the case of Ricardo as of Marx it has actually contributed thereto: "On n'aime guère, quand il s'agit d'un grand homme, à dire qu'il est inintelligible, soit par un sentiment de respect, soit peut-être de crainte de passer soi-même pour inintelligent et on s'evertue à chercher un sens profond aux passages les plus troubles."[2]

Ricardo's mode of expression, while devoid of literary skill either as to plan or style, had nevertheless a degree of effectiveness quite at variance with his own depreciative estimates. The pamphlets and the correspondence written under the stress of controversial warmth illustrate this very much better than the "Principles," which often discloses a benumbing consciousness of authorship. But even his

[1] "Don't meddle with Ricardo," James Mill wrote to Francis Place. "It is not easy to find him in the wrong, I can assure you. I have often thought that I had found him in the wrong, but I have eventually come over to his opinion" (Add. MSS. Brit. Mus. 33, 152, f. 227).

[2] Gide et Rist, Histoire des Doctrines Économiques depuis les Physiocrates jusqu'a nos Jours (1909), p. 161.

doctrines, if demonstrated awkwardly were phrased compactly, often with a paradox-like snap. Such phrases as "the compatibility of a rise of wages, with a fall of prices," population "always increases or diminishes with the increase or diminution of capital," "the landlord is doubly benefited by difficulty of production"—once the principles underlying them were established—carried forward the propaganda with a momentum of their own.[1]

But favorable as may have been the time, and peculiarly endowed the man and his manner, economic science would never have felt the Ricardian influence to the extent that it did but for the intellectual tenacity, the irrepressible enthusiasm and the propagandist activity of the group of friends, disciples and expositors—James Mill, McCulloch, Torrens, John Stuart Mill, Mrs. Marcet, De Quincy—who promptly espoused the new dispensation and gave it widespread currency. Adam Smith made political converts, Dugald Stewart aroused student enthusiasm, but Ricardo won aggressive disciples. Let us consider for a moment the relations of Ricardo and McCulloch.

First contact dated from June, 1816, in Ricardo's criticism of McCulloch's heterodox writings on the national debt. Regular correspondence followed McCulloch's unqualified acceptance of Ricardo's thought—indicated by laudatory notices of the "Principles of Political Economy and Taxation" and of the "Proposals for an Economical and Secure Currency" in the Edinburgh Review, in 1818. Actual intercourse occurred in the course of McCulloch's visit to

[1] The influence here was undoubtedly James Mill. The opening paragraph of "Commerce Defended" sets forth that: "Rousseau confessed to Mr. Hume, and Mr. Hume repeated the conversation to Mr. Burke, that the secret of which he availed himself in his writings to excite the attention of mankind, was the employment of paradoxes. When a proposition is so expressed as to bear the appearance of absurdity, but by certain reasonings and explanations is made to assume the semblance of truth, the inexperienced hearers are, in general, wonderfully delighted, give credit to the author for the highest ingenuity, and congratulate themselves on a surprising discovery. When these paradoxes are so contrived as to harmonize with any prevailing sentiment or passion of the times, their reception is so much the more eager and general."

London and to Gatcomb Park, in the spring of 1823. From the outset almost McCulloch became body and soul a Ricardian. "Mr. Ricardo has examined the fundamental principles on which the science of Political Economy rests" —he wrote in the Edinburgh[1]—and "he has done more for its improvement than any other writer, with perhaps the single exception of Dr. Smith." And Ricardo himself avowed "My own doctrines appear doubly convincing as explained by your able pen, and . . . those who could not understand me, most clearly comprehended you."[2]

Thus imbued, McCulloch became a prolific and energetic expositor. From 1817 to 1827 he wrote the economic articles for the Scotsman, and for two years (1818–1820) he was editor of that journal. He became the principal economic reviewer of the Edinburgh in 1818 and continued so for twenty years. He contributed the important economic articles to the "Supplement of the Encyclopedia Britannica" in 1818–24, and to successive editions thereafter, and when Malthus filed a mild protest with the editor, Macvey Napier, at "the general adoption of the new theories of my excellent friend Mr. Ricardo into an Encyclopedia, while the question was yet *sub judice*"—McCulloch replied with some acerbity that the "Supplement" "was not intended merely to give a view of the science as it stood forty-five years ago, but to improve it, and to extend its boundaries."[3] McCulloch conducted classes and gave lectures on the study of political economy in Edinburgh and London "to large audiences of Noblemen, Gentlemen, Merchants, and others."[4] In 1824 he was the first Ricardo Memorial Lecturer, and in 1828 he was appointed to the chair of political economy, in University College. He wrote many books and pamphlets, compiled useful manuals and rendered important editorial services. For two generations, or cer-

[1] June, 1818, p. 60.
[2] Letters of Ricardo to McCulloch, p. 10.
[3] Ibid., pp. 147–148, note.
[4] Notes of Mr. McCulloch's Lecture on the Wages of Labour and the Condition of the Working People (1825), p. 3.

tainly until John Stuart Mill's apogee, McCulloch was the veritable keeper of the economic conscience of England—and McCulloch's exposition was dogmatically, aggressively Ricardian.

Let us turn now from this brief survey of the causes of Ricardo's influence upon economic thought, to some estimate of the actual character of that influence. In the first place, there is a definite and tangible impress upon specific economic opinions. It is not too much to say that much of our present-day wisdom with respect to (a) currency, (b) taxation and (c) international trade is based upon Ricardo's analyses.

In the matter of currency, the development of monetary theory before Adam Smith, and more notably from Adam Smith to Ricardo, saw the appearance of many important principles. Ricardo's service was not merely to confirm and amplify such earlier doctrines, but to coordinate them with monetary practice to a degree that removed the questions involved from the arena of debate and established them as positive monetary cannons. From the time of Gresham—or of Copernicus or Aristophanes—the impossibility of a concurrent circulation of standard and debased currency had been perceived; but Ricardo made clear that this principle operated only in face of aggregate redundancy, and thus laid the theoretical basis for the gold exchange currency of modern states. Hume and Harris—to say nothing of the economic liberals of the late seventeenth and early eighteenth centuries—had stated that money everywhere tends to a value level; but Ricardo established the territorial distribution of the precious metals as the theoretical basis of the international price level and the principles governing foreign exchange. Lord Liverpool had demonstrated the historic futility of the dual monetary standard in England, but Ricardo gave life and general application to this proposition and laid the ground work of modern monometallism. The necessity of restrictions upon issue functions other

than the presentation of discountable paper—the modern culmination of a half century struggle of currency versus banking schools—was set forth in "The High Price of Bullion" in 1810. The propriety of disassociating issue from discount functions—realized in the Bank Act of 1844—was proposed first in 1816 and urged anew in the "Plan for a National Bank" in 1823. The project of a "gold tipped currency" or a circulation made up of demand notes payable in specie upon legitimate occasion was advanced in the "Proposals for an Economical and Secure Currency" in 1816, was actually adopted in 1819, and has since become, in part the system, in part the endeavor of the most enlightened modern states.

In the matter of taxation, we owe to Ricardo acceptance of the principles, first that the social utility of any tax is determined not by its productivity but by its ultimate incidence; and second, that this "influence of taxation on different classes of the community" is traceable by scientific inquiry, being governed by the laws of economic distribution. These considerations have become the fundamental criteria of every modern testing of a tax proposal. Almost from the very beginning of economic writing fiscal pamphleteers and propagandists coupled with their advocacy of specific panaceas some reflections upon the social and economic effects of such measures, and these observations may perhaps be regarded as the beginnings of a theory of incidence. But it was Adam Smith who first, at least among English writers, after classifying the fiscal devices of the modern state, and commenting thereon with a remarkable combination of practical experience, literary equipment and hard-headed common-sense—sought to trace out the ultimate resting place and the wider consequence of every such measure. In taxation, as throughout, Adam Smith's exposition was Ricardo's starting point, and indeed as an apologetic paragraph in the 'Preface' to the "Principles" sets forth, it was only because of dissent from the theory of distribution implied in the "Wealth of Nations" that a

re-casting of the chapters on taxation became necessary. But it has been Ricardo rather than Adam Smith who has exerted the enduring influence in this direction. In Adam Smith's treatment of taxation, the variety of approach, the fullness of comment, the indistinctness of theory obscured and minimized the question of incidence. But in Ricardo's chapters there were simplicity, severity, coherence and compactness. Incidence—the effect of a tax upon economic classes—loomed forth in detached prominence as the occasion of inquiry, and the analysis itself proceeded with irresistible logic in the light of a clearly defined, easily grasped theory of distribution. That theory or the use made of it may or may not have been defective or partial; but the mode of procedure endured and has become the characteristic of modern fiscal discussion.

That the modern theory of international trade must be credited to Ricardo has been set forth in another connection. But more than this, the theory of international trade, "as it was left by Ricardo, and expounded, but not substantially altered, by Mill"[1] has furnished the scientific basis for the practical rule of free trade. This is alike the argument of advocates, and the verdict of historians of freedom of trade. Cairnes declared that "for those who accept the economic theory of international trade, no further proof of the essential soundness of this fundamental principle of commercial policy [free trade] is needed."[2] And with even greater definiteness, Professor Bastable has maintained,[3] "The practical rule of "free-trade,"—that is, the removal of all artificial restrictions on, or encouragements to, any particular industry; the levying of duties for the purpose of obtaining revenue, and from no other motive; the levying of equivalent excise duties where customs duties are requisite; in short, the abandonment of the efforts, once universal, to divert industry into some channel into which the action of the normal economic forces would not have directed it,—is

[1] Cairnes, Some Leading Principles of Political Economy, p. 310.
[2] Ibid., p. 375.
[3] Theory of International Trade (1903), pp. 128–129.

a deduction from the theory of foreign trade" as expounded by Ricardo.

Before leaving the subject of Ricardo's influence upon economic policies, at least a word should be said of that commonplace tendency of modern social history to speak of the economic radicalism of the nineteenth century as an emanation of the Ricardian economics.[1] There is a certain superficial warrant for this. "Scientific" socialism, both in its earlier English phase and as developed by Rodbertus and Mark, rests upon the assumption that value is embodied labor, and the appropriation by the state, wholly or in part, of economic land rent—either as a social panacea as urged by Henry George or as a fiscal device as contemplated by recent tax reforms—is based upon the differential theory of rent.

But manifestly it is necessary here to distinguish between a doctrine and the misinterpretation or outright perversion of it. In a certain sense, every consequence that follows—however remotely or by reason of whatsoever new elements—the enunciation of a principle is to be considered in connection therewith. But in any estimation of influence, the tendency of the original message must be understood and the effect of the intervening forces appraised. To pursue any other course would be to hold religion responsible for the excesses of religious intolerance or to ascribe the waste and brutality of modern warfare to modern technical invention.

The place which Ricardo—in correction of the obvious gap in Adam Smith's exposition—accorded "embodied labor" was, as has been pointed out again and again, not as the cause but as the measure of value. Commodities possessing value are mensurable with respect to the several amounts of labor involved in their respective production, just as according to Adam Smith and Malthus, they might be compared with respect to the several amounts of labor which they would command or according to other theorists

[1] Thus as careful a scholar as Mr. Graham Wallas speaks of (Life of Francis Place, 1898, p. 267) "the 'surplus value' theory, that inevitable corollary of Ricardo's 'labour value'."

with respect to their exchange equivalents in gold, silver, wheat or what not. Not only did Ricardo regard embodied labor as merely one of a series of possible units of value measurement but he was very far from asserting its unique efficacy, and indeed ultimately arrived at a state little short of doctrinal agnosticism. "To me it appears"—he wrote to McCulloch in the evening of his life—"that we have a choice only amongst imperfect measures, and that we cannot have a perfect one, for there is no such thing in nature."[1]

So too in the matter of economic rent. With the progress of society, capital tended to increase, and in consequence of limitation upon the productive capacity of the soil, profits to fall and rents to rise. But these phenomena in themselves betokened no social injustice. They "ought never to be the subject of complaint, if they are the effect of the natural course of things" for "they are the most unequivocal proofs of wealth and prosperity."[2]

Sympathetic and warm-hearted in temperament, Ricardo was a firm believer in the possibility of economic betterment, particularly of the laboring classes. In the main this must take the form of self help in the direction of a higher standard of life: "The friends of humanity cannot but wish that in all countries the labouring classes should have a taste for comforts and enjoyments, and that they should be stimulated by all legal means in their exertions to procure them."[3] There was ample opportunity for direct activity by "the friends of humanity"—such as Lancastrian education, savings banks and the early Owenism, with all of which movements Ricardo was actively identified. To such amelioration the state might very properly lend itself. Failing private agencies, Ricardo was one of the active supporters of Crespigny's unsuccessful motion in 1819 for a parliamentary inquiry into the reasonableness of Owen's scheme, and he was made a member of the Select Committee

[1] Letters of Ricardo to McCulloch, p. 176.
[2] Essay on the Influence of a Low Price of Corn, p. 20.
[3] Principles (1819), p. 95.

of the House of Commons appointed in 1821 to consider the employment of the poor.

Yet withal Ricardo was an outright individualist, with profound respect for property rights and vested interests not as things desirable in themselves but as the essential bulwark of social stability. Thus he disavowed sympathy with McCulloch's proposal for the scaling down of interest upon the national debt and, free trader though he was, insisted upon the gradual rather than outright reduction of the corn duties. He admired Owen and respected Place, yet he subscribed heartily to the verdict of the committee of 1821 as to the Lanark scheme: "Certainly your committee feel every disposition high to estimate the effects of good education and early moral habits; but to conceive that any arrangement of circumstances can altogether divest a man of his passions and frailties as they comprehend principles in themselves undeniable, is a result which can never be anticipated."[1]

By regarding economic distribution as the central point of the existing social order and the growth of economic rent as an incident of social progress, and by formulating compact dicta-like doctrines with respect to both, Ricardo perhaps stimulated mental inquiry as to the necessity of the prevailing system. In this sense—typified admirably by John Stuart Mill's later attitude—Ricardo may be conceived as an influence upon the genesis of social radicalism; but this is very different from the direct responsibility for Marxian socialism or Henry George land appropriation with which he has been charged, and constitutes a service rather than a reproach.[2]

There remains to be considered that which is after all the largest matter involved. What has been Ricardo's influence upon political economy in the narrower sense, that is conceived as a body of scientific doctrines!

[1] Cullen, Adventures in Socialism (1910), p. 166.

[2] The relation in detail of Ricardo's doctrines to economic radicalism is discussed with much acuteness by Professor Karl Diehl in his exhaustive Sozialwissenschaftliche Erläuterungen zu David Ricardo's Grundgesetzen der Volkswirtschaft und Besteuerung (1905).

I may dismiss with brief comment the extreme positions as to the futility or, even worse, the mischief of Ricardo's theoretical work taken by the historical school on the one hand and by the psychological group of economists on the other. In the first, there is such signal failure to consider Ricardo's doctrines in their development or context as to breed suspicion that the subject of examination has either been the bare detached text or perhaps even the modified paraphrase of later expositors. Certainly the mode of criticism signally exemplifies that very neglect of historical perspective arraigned therein as Ricardo's prime defect. As to the less definite but if anything more violent strictures of the "subjective" economists—time has held the bank. Thirty-one years have passed since Jevons in the Preface to the second edition of the "Theory of Political Economy," with the recurrent pessimism that characterizes all scientific progress, spoke of "a shattered science" and made both indictment and forecast. Yet Ricardo has remained the main stream, and Jevons and his successors have become minor tributaries. It may be that we are still discouragingly remote from that day "when at length a true system of Economics comes to be established" but surely there is some warrant for the hope that in preparation therefor we shall not have 'to pick up the fragments . . . and to start anew.'

Quite as unreal and insufficient is it to describe Ricardo's influence as a mere addition to or amendment of existing doctrine. In 1824 Malthus summarized the characteristics of "the new school of political economy" as set forth in its new principles of value, of demand and supply, and of profits.[1] But even Malthus, hostile dissenter as he was, was conscious of more fundamental differences, and the trend of subsequent opinion has been fully in accord.

As a matter of fact, the effective contribution of Ricardo to economic science was not content but method. It was he who, by example in the main, rather than by argument,

[1] Quarterly Review, January, 1824; cf. Bonar, Malthus and his Work (1885), pp. 275–281.

established the title of economic inquiry to the rank of positive science, capable of pursuit by the logical method of deduction. In so far as Adam Smith wrote a scientific treatise it was like the prose which Moliere's bourgeois spoke. Trained in classical philosophy, the academic successor of Carmichael and Hutcheson, the class-room expositor of "moral philosophy," it was inevitable that the "Wealth of Nations" both in lecture outline and in treatise form should bear the earmarks of a philosophy of the schools. And yet no student of method can speak of the "Wealth of Nations" as a scientific treatise. The excellence of the work, its wide-spread popularity and its practical influence grew out of a unique combination of useful information and common-sense argument, rather than logical plan or scientific method.

This appears, for example, at the very outset. After setting forth that the annual production of the nation is determined in large part by "the skill, dexterity, and judgment with which its labour is generally applied" Adam Smith omitted all analysis of these elements, and, declaring that "the greater part of the skill, dexterity, and judgment with which it [labour] is any where directed or applied, seem to have been the effects of the division of labour"—he devoted himself exclusively to the division of labor. His account of the working of this principle is a veritable economic classic. But when he passes from description and detail to philosophical induction there is an abrupt collapse. To ascribe this division of labor to "a certain propensity in human nature . . . to truck, barter and exchange one thing for another" and to regard this propensity as either "one of those original principles in human nature, of which no further account can be given" or as "the necessary consequence of the faculties of reason and speech"—is a logical lapse that has excited the astonishment of all subsequent commentators.[1]

If we turn now to Ricardo, an impressive contrast pre-

[1] Wealth of Nations, Bk. I, chap. i, ii.

sents itself. Ricardo conceived his field of study with logical precision and he cultivated it with scientific spirit. The field so defined may have been an improper demarcation and the logical method employed by no means the best; but definition and method there were, and from Ricardo's time economic study has moved on, aspiring at least to be the analysis of a definite subject-matter by consciously logical method.

In part, this formalism as to scope and method came to Ricardo from without—probably from Dugald Stewart and Jeremy Bentham, through James Mill.[1] I can explain in no other manner the familiar use of such phrases as "the science of political economy," "the laws of political economy"—to be found in Ricardo's pages in marked contrast with the entire absence of such terms in the "Wealth of Nations." But to a greater degree it represents a native impulse, confirmed and heightened by Ricardo's sympathetic interest in natural science—chemistry and geology—and by his personal association with their devotees. To a mind as rigidly logical as his own it seemed an obvious truism that if political economy was to be studied at all it must concern itself, in the same sense as chemistry or geology were being pursued, with a definite subject-matter and employ as orderly a manner of reasoning.

What this subject-matter was, Ricardo set forth in a letter to Malthus of September 28, 1821—perhaps the only phrasing of it to be found in any of his writings: "the great enquiries on which to fix our attention are the rise or fall of corn, labour, and commodities, in real value, that is to say the increase or diminution of the quantity of labour necessary to raise corn and to manufacture commodities . . . mankind are only really interested in making labour productive, in the enjoyment of abundance, and in a good distribution of the produce obtained by capital and in-

[1] Dr. Elie Halévy in his brilliant La Formation du Radicalisme Philosophique (1901) has urged with characteristic ability (vol. ii, pp. 214–246) that the primary source was J. B. Say and his French predecessors.

dustry."[1] But the fruitful, in contrast with the possible, field of economic inquiry was very much narrower than this: "Political Economy you think"—he wrote in an often-quoted passage to Malthus—"is an enquiry into the nature and causes of wealth; I think it should rather be called an enquiry into the laws which determine the division of the produce of industry amongst the classes who concur in its formation. No law can be laid down respecting quantity, but a tolerably correct one can be laid down respecting proportions. Every day I am more satisfied that the former enquiry is vain and delusive, and the latter only the true object of our science."[2]

Both of these sentences were written some years after the "Principles of Political Economy and Taxation" had made its first appearance, and like the declaration of the "Preface" to the treatise itself—"To determine the laws which regulate this distribution, is the principal problem in Political Economy"—might be regarded as belated justification rather than as preliminary design. It is very possible indeed that the formal phrasing was Mill's influence; but the view point and the delimitation are essentially Ricardian.

It would be fantastic to seek for any formal exposition of method in Ricardo's text. Yet from the very beginning of his activity as an economic writer, he avowed that logical procedure which he practised—assumption of definite forces and derivation of ultimate effects. Thus in the "Appendix" to the fourth edition of the "High Price of Bullion," he declared: "It is self-interest which regulates all the speculations of trade; and, where that can be clearly and satisfactorily ascertained, we should not know where to stop if we admitted any other rule of action."[3] In more general form is the process of obtaining economic principles by deduction from primary elements involved in a letter to Malthus of October 22, 1811[4]—more than five years before

[1] Letters of Ricardo to Malthus, p. 198.
[2] Ibid., p. 175.
[3] P. 70.
[4] Letters of Ricardo to Malthus, p. 18.

the "Principles of Political Economy and Taxation" was written—the neglected significance of which may, perhaps, warrant citation in full[1]: "I wish to prove that if nations truly understood their own interest they would never export money from one country to another but on account of comparative redundancy. I assume indeed that nations in their commercial transactions are so alive to their advantage and profit, particularly in the present improved state of the division of employments and abundance of capital, that in point of fact money never does move but when it is advantageous both to the country which sends and the country that receives that it should do so. The first point to be considered is, what is the interest of countries in the case supposed? The second what is their practice? Now it is obvious that I need not be greatly solicitous about this latter point; it is sufficient for my purpose if I can clearly demonstrate that the interest of the public is as I have stated it. It would be no answer to me to say that men were ignorant of the best and cheapest mode of conducting their business and paying their debts, because that is a question of fact not of science, and might be urged against almost every proposition in Political Economy. It rests with you therefore to prove that a case can exist where it may become the *interest* of a nation to pay a debt by the transmission of money rather than in any other mode, when money is not the cheapest exportable commodity,—when money (taking into account all expenses which may attend the exportation of different commodities as well as money) will not purchase more goods abroad than it will at home."

But although Ricardo regarded economic principles as uniformities based upon fundamental social impulses, he was far from neglecting actual conditions either in deriving and verifying his theories or in applying them in the form of positive legislation. Thus in the "Principles" in 1817, he undertook "to state his opinion" not only after "his best

[1] Professor Hector Denis has subjected this phase of the Ricardian economics to a most valuable and suggestive criticism in his Histoire des Systèmes Économiques et Socialistes (1907), vol. ii, p. 128 et seq.

consideration" together with the aid derived from preceding writers but "after the valuable experience which a few late years, abounding in facts, have yielded to the present generation." The pamphlets on currency and corn laws are direct analyses of contemporary conditions and in their controversial aspects abound with verifications and qualifications of general principles in the light of actual facts. Finally, in the application of general principles—be it the incidence of taxation, the influence of agricultural improvements, the desirability of compensatory corn laws, the minimum rate of wages—Ricardo was quick to recognize the modifications which general theory must undergo in application to actual affairs.

In short, Ricardo conceived a positive science of political economy constituted of the tendencies or laws prevailing with respect to a clearly defined group of phenomena. He derived a series of uniformities, first by deduction from fundamental principles of human conduct illustrated and tested by reference to past and present conditions. He assembled the principles thus obtained into a coherent whole, enunciated in unsystematic elliptical form, but characterized by all the essentials of a body of scientific doctrine. By this service he raised economic study to a new dignity, giving it consciousness and impetus. His data may have been inadequate, his method in part defective, and his conclusions sometimes misleading; but his inestimable service was in definitively converting economic speculation from detached inquiry or specific theorization to an organically related body of general principles. If the validity of certain of his doctrines has been questioned, if the universality of many of his conclusions has been denied,—such results reflect the incredible expansion of the subject matter of political economy which a century of industrial growth has brought forth. What Ricardo did remains the corner stone of economic science. But more than this, what he tried to do gave the momentum to scientific study of economic principles and has continued its chief inspiration.

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